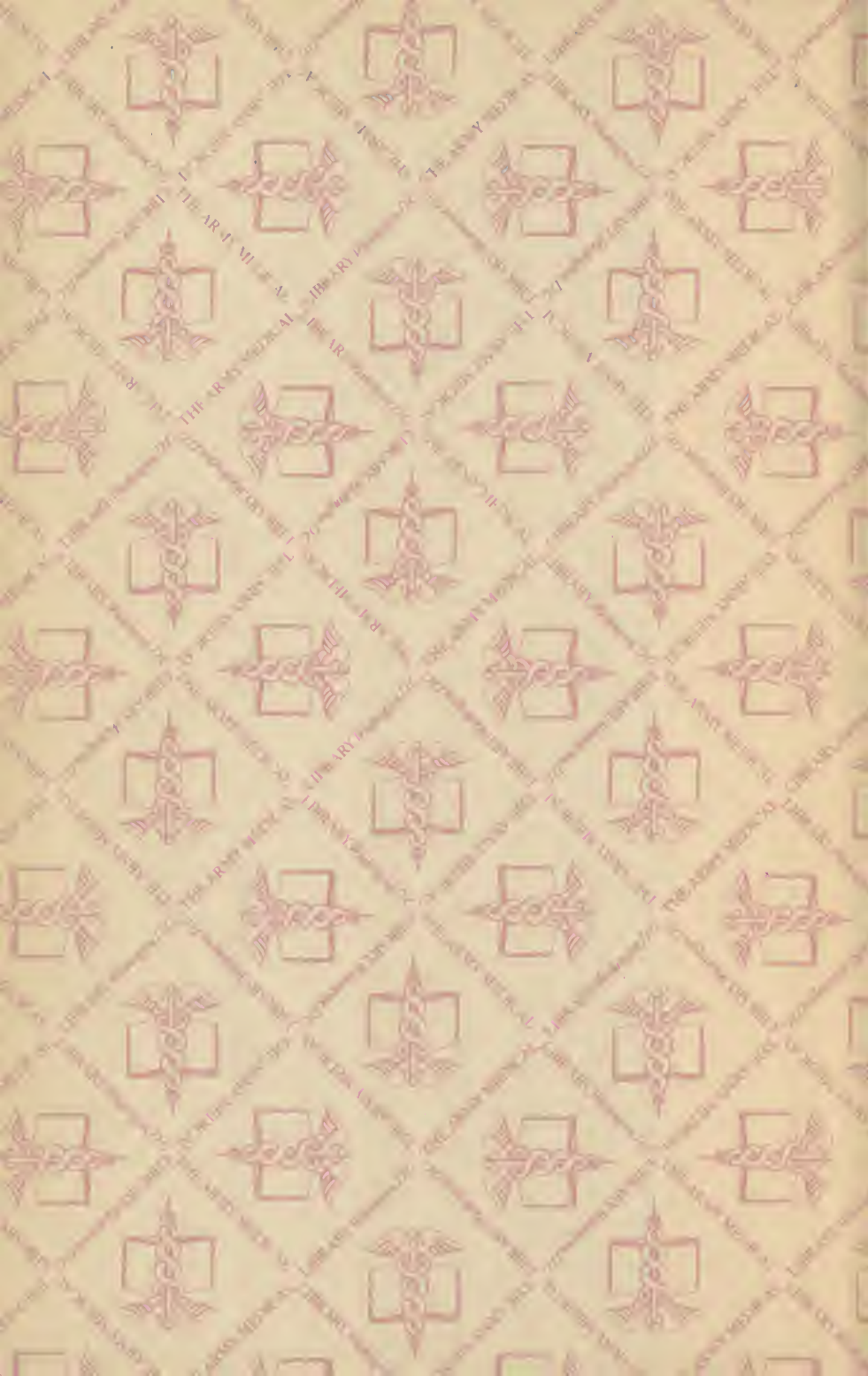
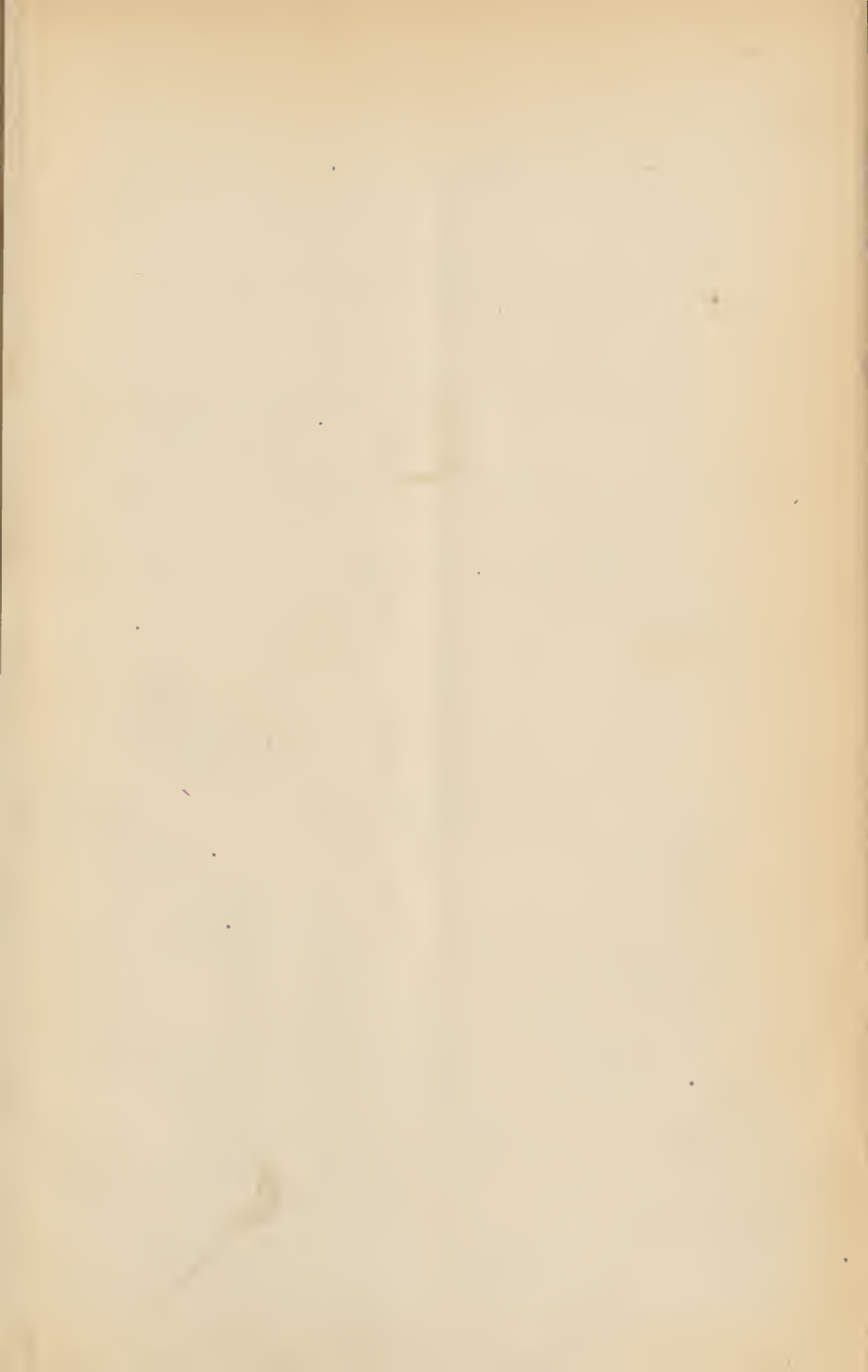


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C434L
1787-1869







LIFE AND DEATH

IN

NEW ORLEANS

From 1787 to 1869,

AND MORE ESPECIALLY DURING THE FIVE YEARS,

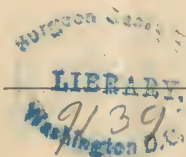
1856 to 1860,

BY

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Statistics

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N. B.—For ERRATA see last page of this article.

Life and Death in New Orleans.

By STANFORD E. CHAILLÉ, A. M., M. D.,

*Professor of Physiology and Pathological Anatomy, Medical Department,
University of Louisiana, New Orleans.*

"Fais ce que je dois, advienne que pourra." •

INTRODUCTORY.

IN 1868, it was agreed between my friend and colleague, Prof. S. M. Bemiss, and myself, that we would undertake, as appropriate to our official positions, the study of the "Sanitary History and Condition of New Orleans." It was decided to avoid all theories, and to deal solely with facts as recorded by the most reliable authorities; so arranging these as to show plainly the practical conclusions logically deducible from them. It was hoped that a study thus prosecuted would aid the profession and the public to arrive at a common conclusion in regard to many things, which though indisputable are disputed. Until unanimity can be secured in the profession, it has little right to complain of the indifference and ignorance of its pupil, the public, in regard to those questions of vital sanitary importance, which solved by the former, can be executed only by the latter.

My colaborer having selected the medical and hygienic laws of this State and city as his portion of our subject, left to me

whose professorial duties are devoted to life and death, the record of the living and the dead of New Orleans.

Prevalent prejudices render necessary some introductory remarks in reference to these researches into the vital statistics of this city; 1st, as to the value of vital statistics; 2d, as to the method pursued by the writer; and, 3d, as to the general conclusions fairly deducible from these researches.

I. Many contend that no reliance is to be placed upon medical statistics, for that anything can be proved by figures. A little reflection ought to show that figures are like words, and that anything can be proved by either, *provided* only the premises be granted;—and that he, who is more readily deceived by the one than by the other, owes it to the faulty construction or education of his own mind, rather than to any special superiority of figures over words to convey falsehoods.

It is true that figures express facts with great exactness, and therefore it is indispensable that they should be absolutely precise to justify a perfectly accurate conclusion. Unfortunately, this precision is rarely attainable in vital statistics. But if the figures approximate precision, they lead to an approximative, if not absolute truth; and the oftener the evidence be repeated, and the more various the witnesses, the nearer do the conclusions approach absolute accuracy. Even when medical statistics fail to yield strictly scientific results, they never fail when properly studied “to indicate probabilities and suggest research.”

The practical benefits derived from vital statistics are incalculable. Hygiene has here its surest foundation, and thus has sprung into existence the great characterizer of modern civilization, State Medicine;—which in every well governed country, has done and is daily doing more for human health and life “than all the drugs which were ever discovered, or administered to suffering humanity.” By vital statistics alone can be determined the comparative health of different places, and even as is constantly done of very limited portions of the same town. Such differences establish at once, that different causes are at work; and the search for these and their remedies has proved so successful, that the modern hygienist can proudly and truthfully boast (somewhat as did Themistocles) that he knows

how to convert a sickly and enervated people, into a healthy and vigorous population. Unfortunately this knowledge can only be practically applied by the official agents of the people, whose culpable indifference and ignorance are chargeable with an amount of avoidable annual mortality, in comparison with which that by wars, tornados, and earthquakes are as a few drops to a vast ocean; and the lives rescued from this mortality by our pills are much fewer than supposed. That noble modern institution, Life Insurance, with all its enormous pecuniary interests, owes its origin and deserved success exclusively to vital statistics; whose many other merits are so great, that to prove them to an intelligent man ought to be a labor of supererogation.

Some three or four of the more important classes of facts investigated in this, as in all other researches of vital statistics will be indicated, as also those causes of error, as to which the seeker for truth should be on his guard. The chief practical facts sought for are as follows:

1st. The ratio of annual deaths to the total population, or the death rate. This requires solely a correct account of the living and dead, which demands much care but no skill. Therefore the results are generally the most reliable of those obtained from vital statistics.

2d. The ratio of the deaths by every special disease to the total population, and to the total deaths, *i. e.*,—the prevalency and fatality of every disease. This demands imperatively the correct diagnosis of every case of disease which has terminated fatally. All know the shortcomings of the profession in this regard; and when is added to these, the shameful fact, that many most ignorant non-professional persons are permitted in New Orleans to give a certificate of death, no sensible man will attach undue importance to such statistics. They may be trusted in regard to classes of disease perhaps, and to such particular diseases as are popularly well known; such as consumption, syphilis, etc. The difference which exists between the ratio of deaths by a particular disease to the total population, and to the total deaths, is a cause of frequent error which may be thus illustrated: The ratio of deaths, by consumption, in New Orleans, to the total population is very large, whilst this ratio to the total

deaths is comparatively small; and for the reason that the total of all deaths in New Orleans is comparatively very large. Observation of this small ratio in the one case, without proper consideration of the large ratio in the other, has induced many to make the very erroneous assertion that consumption was neither so prevalent nor fatal here as in most other places. (See report of 1856-60.) As a general rule the ratio of deaths by a special disease to the total population is a far more correct test of the comparative prevalence and fatality of such disease, than its ratio to the total deaths.

3d. The ratio of deaths by a special disease to the total number of cases of the same disease, *i. e.*, the chance of recovery when attacked by this disease. The practical interest in this question is very great, but the causes of error are numerous and very potent. It is chiefly in consequence of the gross abuse of this branch of medical statistics by the ignorant and the interested, that they have been brought into undeserved disrepute by many, who for the most part are too indolent and careless to labor as earnestly as is necessary, for the truth. We find here the rich pasture field, where quacks out of, as well as in the profession, are wont to feast the credulous to the advantage of their own individual vanity and profit. All such statistics to deserve credence should have one of two guarantees; either that all observers give the same result; or that any one observer should be known to be thoroughly disinterested, honest, and competent. My acquaintance with men of this kind is remarkably limited. However, notwithstanding all the powerful causes of error; the virtues of quinine, opium, of most remedies, and thousands of our most valuable facts, all owe the confidence reposed in them to statistics of this last kind; which we must continue to use until the invaluable empiricism on which medicine still reposes has given place to a perfect science.

II. *Method pursued in this study.*

Prospective fault finders are respectfully referred to the bibliography accompanying this article, where will be found the sources of the facts recorded in what follows; preference having been always given to the official figures. In every case of doubtful

authority, the legal maxim, that to innocence belongs a doubt, has been observed, and all such facts cast in favor of the sanitary reputation of New Orleans. Let it be well understood that whilst I am responsible for the conclusions drawn from the premises, I am not at all responsible for the accuracy of the premises themselves. If falsehoods be recorded, they are certainly not mine, but those in chief part of every Board of Health, and of every census ever taken by both Spain and the United States. To invalidate the general conclusions it must be proved that the reports, not of one year, but of most of the years were false; that these reports were not simply false in minor particulars and small degree, but that they did not even approximate the truth; and that they were not only grossly false, but that they were more false for New Orleans than similar reports are for other cities. The repeated error of others renders it necessary to warn the reader that these researches seek approximative and *comparative*, rather than absolute truth; and therefore that every addition or deduction made for one city, must be made for all with which it is compared, and to which it is similarly circumstanced.

It is not pretended that no errors have been committed by the writer, whose tastes and habits are certainly not devoted to arithmetical calculations; but such conscientious care has been taken that it is confidently believed that no errors will be found of sufficient magnitude to invalidate the practical conclusions. As an additional safeguard, the original official figures from which the calculations were deduced have generally been given to enable the reader to test the accuracy of the latter. None need doubt that my love of truth is strong enough to enable me to accept with gratitude rather than with resentment the aid of any, who though by correcting errors they may blockade the road of vanity, will open freely the pathway of truth; which alone is the object of these researches.

Neither is it pretended that the comparative tables are in every case fair comparisons, but it is asserted that they are as fair as any which my knowledge and materials supply. Their defects in some particulars are well known.

It will be found that much labor has been bestowed on establishing the fact of chief practical importance, the death rate; that comparatively few conclusions have been drawn from the ratio of deaths by special diseases to either the total population or total deaths; and that the only thing done to establish the chances of recovery by each disease has been to record in Table No. 6, the deaths and discharges by each disease in the Charity Hospital. As a relatively larger number of the worst cases seek this hospital, its figures present of course the worst possible view of the subject, and the best to be said of them is that they "suggest research."

The present article is devoted more especially to the Vital Statistics of New Orleans prior to the war. Two subsequent articles are contemplated, a second to embrace the period of the war 1862-65, and a third to cover the time from 1866 to the publication of the census of 1870;—when, the five years 1856-60 now studied will be compared with the five years subsequent to the war, 1866-70, and by which time it is hoped that something approaching truth will be finally established, and generally accepted.

Cordial thanks are due by me to so many friends for the aid given and the materials supplied, that I hesitate to record their names. Past circumstances, however, render it a pleasant duty for me, an ex-rebel, to testify before a Southern professional audience to the cordial assistance given by Surgeon General Barnes, U. S. A., and his aid, Dr. J. J. Woodward, U. S. A., and to Surgeon Jno. F. Randolph, Medical Director of this Department.

To all of these, and especially to Dr. Woodward, will be due those facts which will enable me to record the Sanitary History of this city, during a period of great interest and very great importance, 1862—1866.

The method of study pursued claims one great superiority over the plan most generally adopted. A superiority to which it is desired to call the particular attention of all Boards of Health, and those whose duty requires annual mortality reports. In every table, as of deaths by nativities, races, sexes, ages, etc., the figure indispensable to an instructive conclusion, viz., the population of these various specifications is invariably given.

Were this plan generally adopted, it would very greatly aid the student of this very important branch of medicine.

The present article is divisible into two parts; 1st. General researches into the death rate of New Orleans from 1787 to 1869, and, 2d; Special researches in the Vital Statistics of the five years, 1856—1860. These years have been selected for particular study for the reasons, that the official reports of them are believed to be more reliable than for other years; they are the five healthiest years in a consecutive series of which we have any records; and immediately preceding the war they will naturally become the *point du depart* for comparison with different circumstances and years subsequent to the war.

In closing this portion of my subject attention is called to the fact that in the record of all years and months by me, (not always in the quotations) the figures, as 1856-60, include both numbers, and indicate five years; also that the ratio to one thousand is invariably used as the most convenient, and is reducible by the most simple arithmetical process to the ratio per cent., or the ratio of one dead to so many living, both of which are often used by others.

III. General Conclusions.

These depend on the researches which follow, and though first to be read, were the last to be written. The facts and figures in these researches were derived from the reports of our own officials, who have nothing to gain and much to lose by injurious misrepresentations of New Orleans; though these officials have been frequently changed, the purport of their figures has not changed; and their reports have been accepted for the payment of accounts, for taxation, representation, and for everything except vital statistics. The various tables prepared on this subject, prepared as I alone well know, without regard the one to the other, all unite in harmony to express one invariable result, viz., that New Orleans has been one of the most unhealthy cities in the United States.

Therefore the conclusion is unavoidable, either that we ourselves through our agents have always published, and continue to publish official reports grossly false; or that these reports indi-

cate a fearful truth. In either case it is manifest that an all important duty has been neglected by our citizens; for they have the power to rectify either or both evils.

If these reports be accepted, then they prove conclusively, as will be shown, that New Orleans has been an unhealthy city not only during her epidemics, but also when free from them; not only extremely unhealthy from May to November, but also fails to attain the standard of a healthy death rate from November to May; not only unhealthy for foreigners, but also for natives; not only for the whites, but also for the blacks, and not only for youthful manhood, but also for infancy alas! and for old age. That a city located in the Tropical Disease Realm, environed by undrained swamps, and shamefully notorious for its unsewered streets, and the heaps of decomposing garbage which rot unmolested in its sluggish gutters should enjoy an average degree of health, would constitute a violation of the best recognized laws of Nature, and prove modern sanitary science a tissue of unblushing falsehoods. These assertions from a physician and citizen having his past, his future, all his affections and interests in New Orleans, can only be justified by the hope that good may grow out of them, and by presenting such proofs of their truth, as have thoroughly satisfied his own judgment. In fact my convictions on this subject are as profound as those which incited Peter the Hermit to urge the crusaders on to the Holy Sepulchre, or as moved the voice and pen of Luther to inflict those wounds from which Rome still bleeds.

I have been advised that this publication would injure the sanitary reputation of this city. It has no such reputation outside of its own credulous inhabitants. I have been told that immigration, and thus our progress to greater prosperity would be retarded. But shall I for immigrants and profit suppress the truth, and silence the pleadings of my conscience in behalf of the health of my fellow citizens, and the lives of their helpless children? Ought a doubtful gain for the present generation, to outweigh a great and permanent benefit, for those we love most, the children to follow us? Shall I forfeit my self-respect, by fearing that honest convictions founded on our public records may be answered by the censure and ridicule which greet unwel-

come truths? It must be a very frail reputation which the pen of any one man can endanger, and a very poor cause which trembles before the truth.

After all who, out of the profession, will hear, much less heed the feeble voice which only repeats an old story often told by those abler than mine? Remember, that after the telling, the prosperity of New Orleans continued to float from above down the current of the Father of Waters; and alas! remember also, that we have continued to indulge the criminal indolence, which still permits unreclaimed morasses to pour out their pestilential malaria on the city they encroach upon; our streets, gutters and privies to reek with filth, belch forth their nauseous odors, poison every inspiration of the air we breathe, and thus hasten annually to their graves thousands of lives. Lives which the wave of annual immigration, so largely composed of needy ignorants, shiftless spendthrifts, and tarnished adventurers, replaces with poor advantage to the permanent welfare of this city. These immigrants will not be deterred by my representations, but will continue to come so long as money bags are plentiful, though their chances of dodging the devil were much less than they are. May a greater effect be produced on those for whom alone I write, those honest fellow citizens who seek the truth, and when it is found have character enough to act upon it.

Had we not better take to heart, and induce our daily papers to apply at home the advice so freely and even pathetically urged upon our neighboring planters, viz., to raise their stock at home. *Our* stock, the resident men and women, and the native children, are permitted to live and struggle against conditions as unfavorable to health and life, as even brute animals are rarely compelled to undergo in comparative degree. Why is it that an enlightened public press gives eloquent and potent aid to the Mouths of the Mississippi, the Texas Railroad, and all laudable commercial enterprises, and yet remains almost silent as to improvements of far more moment than all others, the drainage and sewerage of this city, and such other sanitary reformations as would very certainly result eventually in rescuing annually thousands of lives from an untimely grave? It seems to wait,

like its patron, the public, for another overwhelming pestilence, such as the great epidemic of 1853, which galvanized them into a few spasmodic efforts, resulting in some ill-digested and worse executed laws, organizing a quarantine satisfactory to neither contagionists nor anti-contagionists, and an impotent Board of Health utterly powerless to enforce those things needful for the public health. To know how very evil are these evils, to know that they are remediable, and to be expected to live under them, not only silently but even to praise their baneful results is demanding too much of any honest man. Are we, like children to go on wondering why human labor is so dear with us, and why our city has comparatively languished in the race of progress, when we rate human life so cheaply, and cause by our negligence an extravagant waste of not only the foreign importation, but also of the home production of it?

But are these evils remediable? The histories of all well governed cities unhesitatingly answer a thousand times yes. Doctors know well the remedies, engineers know well how to apply them, and the people ought to know how to employ both, and to provide the necessary means. A few examples may be given to show what has been done, and can readily be repeated.

It must be borne in mind that it is well established that 11 deaths annually in every 1000 living population are unavoidable; but that any excess over this in healthy countries is preventable.

Cities are more unhealthy than the country, but even for these 17 per 1000 is deemed the very extreme of necessary mortality. But whilst many cities have in occasional years a death rate lower than 17 per 1000, yet as a general average for all cities, 25 per 1000 (25 per cent., or 1 death to every 40 living) is practically regarded at the present day as a fair standard of health; whilst under 20 is deemed very healthy, and over 30 decidedly unhealthy. N. B. Death rate of New Orleans, 1856-1860, the five healthiest years recorded, was 46.3 with, and 39.7 without yellow fever.

In the past forty years, London, Paris, as very many other cities, have, by hygienic measures, reduced their death rate by from 5 to 10 in every 1000 (*i. e.*, about 30 per cent.), and now enjoy the average healthy standard or less, which is not aug.

mented, even by cholera or other epidemics, much, if at all, over 30 deaths per 1000 population.

In the city of Salisbury, the annual average mortality during eight years previous to the *complete drainage* of the city was 27 per 1000; whilst in the succeeding eight years, it was reduced to 21 in 1000. In the city of Ely, the average annual death rate in the seven years, 1843-49, was 26 per 1000; in the year 1851, public sanitary works were brought into operation, and in the seven years 1851-57, the death rate was reduced to 20½, whilst in the last of those years, it was only 19 in the 1000. It was noticeable, that, whilst the death rate in this city was reduced, subsequently to the sanitary improvements from 26 to 19, the annual death rate in the surrounding country was still 21 in 1857.

“When Algeria was first colonized, the mortality in the virgin and singularly humid soil of the Mitidga was enormous, 206 per 1000, and the births scarcely sensible; but now (1868) the deaths are only 24 to the 1000, and there are 39 births to 30 deaths. Researches in Martinique, Guadeloupe, Guiana, and Senegal also prove the truth of the principle that every where the mortality diminishes with the development and perfection of the laws of hygiene; and demonstrate conclusively, that if France wills it, prosperity in Algeria is certain.”

Ancient Rome was extremely unhealthy, the Elder Tarquin, wiser and more powerful than the Common Council of New Orleans, drained it by sewers, when it became comparatively healthy, and the centre of the largest urban population which probably ever existed. When the invading Goths destroyed the aqueducts, filled up and obstructed the sewers, Rome became again the focus of disease. Appius Claudius, 300 years B. C., drained the Pontine Marshes and rendered them inhabitable. This drainage was destroyed by Theodoric's invasion and again these marshes became so sickly as to be uninhabitable. In fact, the past and the present unite experience to science in declaring so loudly, that drainage, sewerage and an adequate supply of pure water are indispensable to health, life and prosperity, that a people who will not heed this declaration does not deserve these blessings.

Innumerable examples could be added to those given, proving that our evils are remediable, and not one example to show that

proper hygienic measures have ever failed to alleviate such evils in very great degree, if not to cure them radically. Thousands of years ago the inspired Moses issued the hygienic order, that thou shalt go forth "*without the camp,*" and there cover up "*that which cometh from thee;*" whilst on every page of modern sanitary science is recorded that: "It has been proved over and over again that nothing is so costly in all ways as disease; and that nothing is so remunerative as the outlay which augments health, and in doing so augments the amount and value of the work done."

For this city the great practical question, and the most profitable investment consists in Drainage and Sewerage, and every intelligent citizen should cry out these words in and out of season, until they become accomplished facts.

It is in place here to remind the reader, resident of New Orleans, that on March 30th, 1869, a board of ten competent engineers, Gen. Braxton Bragg, Chairman, reported to the Common Council, which appointed them, that "the peculiarity of our topography renders the application of this system (underground covered sewerage) both simple and comparatively inexpensive," and express the opinion *confidently* "that the interest on the capital necessary would fall largely within the present ability of the city, and the whole principal would be more than covered by the increased value of property within two years after the works shall have been completed."

Accepting the views of these experts, selected by the Council itself, as to the practicability of underground sewerage, I desire to remind the reader that in recent times, proof has augmented year by year, of the injurious influence upon health and life of accumulations of human ordure, and that it is indispensable that these as all other organic matters should be conveyed "*without the camp*" as quickly as practicable. Our humid heated climate above all others, most favors the rapid putrefaction of all decomposable matter. Now excluding the immense mass of offal and garbage furnished by our animals, our butcheries, our food, our sugar and other manufaetories, it is still to be borne in mind, that our 200,000 population furnishes annually not less than 18,250,000,000 gallons of urine and 5,000,000 tons of solid fæcal matter, which are left for a large portion of the year to decompose

within and infect our dwellings; and since all this can be promptly removed only by underground sewerage, there can be no hesitation between this and our present wretched system of surface drainage. It may be added that "the unanimous voice of all men who have studied the drainage question in England, has pronounced in favor of underground sewerage as the only practicable measure for large towns. The recent report of Lt. Col. Ewart seems to settle this question even as to small towns."

A practical result, which deserves special attention, is also demonstrated by these researches. None can deny that they involve questions of great moment, and that if the official reports were thoroughly reliable, and generally credited, the important practical conclusions would be absolutely correct and indisputable. A correct census of this city, and correct annual mortality reports are indispensable to this desirable end, which our City Council, by a few simple laws, a few honest and competent officials, and with very little expense can easily and promptly secure.

I will close these remarks introductory to the study of the Vital Statistics of New Orleans, which have occupied three months of arduous and conscientious labor, by stating that I have "to the best of my knowledge and belief stated the truth, the whole truth, and nothing but the truth, so help me God," and that no citizen of New Orleans will rejoice more heartily than I if it can be proved conclusively that my knowledge is false, and my belief founded on records unworthy of confidence.

But if my conclusions be disputed, and even proved false, one great practical fact will remain, that however healthy New Orleans may be, and however prosperous her future, she can never be as healthy and prosperous without, as she surely would be with those sanitary reforms which her "peculiar topography" demands more imperatively than any other city in the United States.

PART I.

General Researches on the Population and Death Rate of New Orleans.

The determination of the death rate of a place depends on the number of the population, and the number of the annual deaths,

The larger the former, and the less the latter, the more favorable the result. As the number of deaths is more readily and accurately determined than of the population, every unhealthy place strives to represent the latter as large as possible. Therefore a little must be said as to the accuracy of the annual deaths reported in New Orleans ; and much as to the comparative accuracy of the census of its population, more especially in 1860.

a. No one has ever asserted that the Board of Health reported more deaths than occurred. The sextons have certainly buried in our cemeteries all the bodies reported by them. Examination of the original reports of these sextons, and the records of the Board of Health, has satisfied me, as others have been before me, that the sextons sometimes fail to send in their reports, and in such cases believed to be not infrequent, fewer deaths are reported than actually occurred. Sextons, as other officials of New Orleans, interpret the laws very liberally, and execute them with corresponding laxity.

It is asserted that many non-residents of the city are buried here, and swell the mortality list to our discredit. These non-residents must be either the suburban population, or visitors. As to the former, a considerable number are buried in every city, and when comparing with these, only an excess can be deducted from our list. Our suburban population is comparatively small, and it is probable that all such deaths credited to our list are more than counterbalanced by the deaths and burials of residents out of the city. Philadelphia has had buried in its limits and added to its mortuary list, 1861—1868, from 493 to 919 dead bodies, "from the country" annually. Who can prove anything comparable for this city? As to the visitors or so-called "floating population," who may die and be buried here, the same thing occurs in every city. So the only question is, do we have more comparatively, than other cities. This has been often and confidently asserted, The following facts are submitted: Paris has an average *all the year round* of 200,000 strangers annually, therefore in comparing death rates with Paris, New Orleans being nine times less populous, should have 22,000 strangers *all the year round*. The deaths occurring in any larger number than this can alone be credited to New Orleans.

Neither the number nor size of the various modes of entertaining and conveying strangers, justify the assertion that New Orleans has a larger number of this population comparatively, than London, Paris, New York, Philadelphia, etc., etc. Besides, it must be borne in mind that, since New Orleans has during a large portion of the year comparatively few strangers, a fair comparison demands that during the balance of the year she should have a comparatively much larger number, in order that she may have an equal number for the entire year.

The floating population is in New Orleans from November to May, and the resident population is largely diminished in the summer, and yet the death rate is much higher (with or without yellow fever) from May to November. The floating population does not consist of children under ten years, and yet their death rate is very high. These unquestionable facts would seem to be sufficient to settle this question.

b. The many physicians and citizens of this city who contend that her death rate is a fair one, have been forced to assert that the population has been underestimated by the U. S. census. As the establishment of the correct death rate depends almost wholly on this question, I have given it as careful and impartial examination as is in my power, and present the following series of facts to elucidate it. It must not be forgotten, that the question is not whether the census is absolutely accurate, but whether it is comparatively accurate, whether any greater injustice has been done New Orleans than other cities in the United States.

1. It has been asserted that the United States census has always been taken in the summer, when a large portion of its population was absent, and therefore not numbered in the census. It is probable that New Orleans has a larger number of absentees in summer than other cities. But the legal method of taking the census teaches important facts in this regard. "Assistant Marshals duly qualified," are appointed, required to fill up certain blank forms, and to certify on oath to the following, among other things; that they have visited every house, obtained their information from the head of the family, or in his absence from his agent, or some "member of the family over twenty years of age," and that he has enumerated the name of

"every person whose usual place of abode" was in this family, "including the names of those temporarily absent." In addition, each assistant is allowed "as compensation for his services, after the rate of two cents for each person enumerated." Thus the census takers are pecuniarily interested in not underrating a population, and are not only required to enumerate absent residents, but must swear they have done so, and are paid two cents apiece for every one they swear to. Surely these facts are very far from justifying the assertion that a summer census is necessarily an under estimate.

2. If the United States has done New Orleans comparative injustice, let us see, what has been done by its own officials.

	Total population.
1847—March.—City Census.....	94,526.
1847.—August.—State ".....	79,503.
1847—Aug.—U. S. " (Pro-rata estimate census, 1840 and 1850)...	112,000.
1852—City Census (Lafayette included).....	145,449.
1852—U. S. " (" " Pro-rata est. census, 1850-1860)...	137,410.
1859—February.—City Census.....	138,277.
1859—U. S. " " Pro-rata est.....	164,400.

The city census, 1859, gives a population 7,172 less, but 3821 voters more than in 1852, and was generally discredited. These facts prove conclusively that our officials treated us much worse, than did those of the United States, and suggest investigation of the motives in our own eyes.

3. The "British Medical Times and Gazette," publishes in every weekly mortality report, that the 14 largest cities in Great Britain average $35\frac{1}{2}$ inhabitants to every square acre, London and Edinburgh having less than 41.

New Orleans, from its upper to its lower limit, measures in length about seven miles, (as an old resident and *not* as an expert), I estimate its average breadth of the entire seven miles as not exceeding a mile and a quarter, (N. B., from river by Common St., to United States Marine Hospital, is two miles). These estimates yield $8\frac{3}{4}$ square miles, or 5600 square acres. Then, provided New Orleans be as densely populated as the average of the 14 British cities (which none who have seen both will credit for a moment), the population would be now 198,800. Suppose New Orleans occupies 10 square miles, or 6400 square acres, and

be as densely peopled as London and Edinburgh, even then the population would be less than 260,000. These facts do not justify the assertion that our population was underestimated by the census of 1860.

4. Voters. If the white people of New Orleans have been as enthusiastic politicians as those of other cities (a fact which has not been questioned), then a comparison of the total vote cast should furnish an approximative and comparative estimate of the population.

The following Table, of places selected at random from Official Reports, throws light on this subject as to the census of 1860.

Table of Population and Voters in the Presidential Election, November, 1860.

PLACE.	Total population in county.	Total voting population or whites in the Co.	Total population of the city.	Total voting population or whites in the city.	Total No of votes in the county in 1860	Ratio of voters to voting population.
Suffolk Co. (Boston).....	192.700	.....	177.840	.....	22.469	1 to 8.6
New York Co. (N. Y)..	813.669	801.095	805 658	793.186	95.583	1 to 8.3
Baltimore City.....	.....	.....	212.418	184.520	29.786	1 to 6.2
St. Louis Co. (St. Louis).	190.524	184.313	160.773	157.476	24.850	1 to 7.4
Orleans Parish (N. O.)	174.491	149.068	168.675	144 601	10.858	1 to 14.

N. B.—The largest number of voters ever registered in New Orleans prior to the war, was 17,232 in 1859.

Suppose New Orleans cast the smallest vote to population of any of the above cities, viz., Boston, then her white population would have been 93,380, whilst the United States census gave her 144,601. Suppose all her registered voters had voted, even this impossibility would only indicate a white population of 143,195 comparing with Boston, and of course less comparing with the other three cities. Thus it seems that if our own census takers did the city injustice, our voters in 1860 did her far greater injustice.

Examination of the number of voters registered in 1867 in eight States (undergoing reconstruction) showed that the number registered in each State was to the total population in 1860, as 1 to 5.6 very nearly. In Orleans Parish, 36,000 voters were registered,

which would indicate a population in 1860, of 198,600 instead of the 174,491, given by the United States census. Many of those who claim that our population has been underrated are the loudest in denunciation of this registration, which was generally discredited.

The only official document, which I have been able to find, which fully justifies the assertion that our population has been grossly misrepresented is the "report of Wm. Baker, Superintendent Registration," which report bitterly complains that very many more whites were registered than should have been, and was also unanimously denounced by the whites as having registered many more blacks than should have been. However, the following brief summary shall receive a place here.

"Registration began September 25th, 1868, and completed October 24th, 1868."

No. refused registration...	250	Supposed to be entitled to vote.
No. whites registered.....	25,679	5488 of these naturaliz'd from July 4 to Oc. 24
No. colored ".....	16,054	
Total vot'rs in Orleans Parish.....	41,983	
Deduct. " in Algiers.....	2,025	750 whites plus 1275 colored.
No. voters in Orleans Parish, excluding Algiers.....	39,958	25,179 whites plus 14,779 colored.

The nativities of 38,603 of the above gross total of 41,983 are thus given, viz :

Total Foreign Born.....			13,586.
Total native born,	{	Born in La.,.....13,268	} 25,017
		" in other Southern States 9050	
		" in Free States..... 2699	

No reasonable argument based on even this registration would justify a larger estimate of the population in 1868 than 230,000, and yet I see that our newspaper calculators count 300,000. The above registration indicates 100 colored population to every 169 white population. The mortality report shows in 1868, that there were 100 colored deaths to every 219 white deaths. This indicates an overestimate of the registration, but proves conclusively a very large augmentation since 1860, of the colored population, which I estimate as from 60,000 to 75,000; basing this chiefly on the supposition, that the census of 1860 was nearly correct, and that the negro death rate remains comparatively about the same as before the war.

A comparative record of populations and actual votes in 1868 will close this portion of my subject.

Presidential Vote of 1868.

PLACE.	Population in 1860.	Population claimed in 1868.	Vote cast in 1868.
St. Louis.....	160,773	230,000	29,560
Cincinnati.....	161,044	253,541	31,304
Boston.....	177,840	192,318 (in 1865)	27,566
Baltimore.....	212,418	unknown	30,713
Orleans Parish, including Algiers.....	168,675	unknown	21,263
D. 23,987 plus R. 276.			

The Republicans claim a 10,000 vote, but all know that many of the voters claimed by them were counted in the above 23,987; and in view of all the above facts, and an impartial consideration of the exceptional political conditions and popular excitement attending our present circumstances, I do not think that any calm, impartial judgment can estimate our present population as exceeding 230,000 as the extreme limit, whilst 200,000 is only a fair and safe estimate.

5. Population and Deaths in New Orleans, 1856-60. The following quotation is presented, because it is a representative opinion, and declared by one of the most eloquent and able of all the former Presidents of the New Orleans Board of Health, who says in the report for 1859, that, "either New Orleans has a far larger population than has ever been given it—a truth of which we have long been satisfied—or the ratio of mortality to population is frightfully in advance of any city in christendom." Now, in this report there are given 6,847 deaths for the year, of which 91 of yellow fever, leaving 6,756 deaths of non-epidemic diseases. Of these, 3,529 occurred in the half year May 1st to October 31st, and of these 1,617 were of children "under 10 years of age." Thus it follows, that New Orleans, in order to have been a city of average health, in 1859 (*excluding* her great foe yellow fever) must have had a population all the year round of $(6756 \times 40 =)$ 270,240. From May to November, she must have had a population of $(3,529 \times 2 \times 40 =)$ 282,320, and the 1,617 deaths of children "under 10 years of age" demand a summer population not less than 258,720. Over and over again do very many cities of larger

population than these various numbers call for, give fewer deaths than actually occurred in New Orleans; and cast a vote of some 30,000, whilst New Orleans, in 1859, had only 17,230 voters *registered*, and cast in 1860 a vote less than 11,000. To the year 1860 I have heard a population of 200,000 claimed for New Orleans, but the most riotous imagination fell short of the 273,880 population required in 1859, when no epidemic prevailed, to give her any claim to a healthy death rate. Can any judgment halt in its conclusions, and dally in doubt over the dilemma presented in the above quotation?

No error could be greater than to suppose that the year 1859 was exceptionally bad; on the contrary, the same facts are demonstrable in similar or worse degree for every one of the five *healthiest* years in a series (1856-60) of which we have any reliable records. These five healthy years demand, excluding the yellow fever deaths, that New Orleans should have had as an average for each of the five years a population of 255,552, and including the yellow fever, of 297,432. Whilst, as to the poor little children under 10 years of age, whose deaths excite my sympathy and indignation far, far more than those of that "floating population" of alien immigrants over whom few have failed to moan piteously, the same sad facts received annual confirmation!

Let those who doubt digest the following *reductio ad absurdum*. If the census of 1850 and 1860 be comparatively correct, and if New Orleans be a very healthy place, then, since New Orleans lost annually 1856-1860, 3,072 children "under 10 years of age," and since in a very healthy place the deaths by all ages would not exceed this number, it follows that from 1856-60, New Orleans had no inhabitants over 10 years of age!!

6. Comparative calculations based on the number of physicians in this city, on the number of names in the Directories, and, in fine, on any mode of approximative estimation known to me and in my power, fail to justify the assertion that the U. S. Census of 1860 did this city any comparative injustice.

If all the preceding facts have been duly considered, the reader is now as well prepared as myself to form his own conclusions, as to how much credence is due to the numerous tabular statements which follow. Once more let him be warned, that if they

be false, they are not my falsehoods. As has been stated, they have amply satisfied to lead me to absolute conclusions on some things, to indicate probabilities on many more, and to suggest research on still more.

Five Tables complete the first portion of this article, of which the last two, in regard to the Charity Hospital, have no interest except to the physicians of New Orleans. Table No. 3 deserves the particular attention of all. Whilst Tables of figures are anything but pleasant reading, it is believed that those now published will prove valuable, at least for reference in the future.

Historical Table (No. 1) of the Population and Mortality of New Orleans.

New Orleans founded in 1718; governed by France 1718-1769; by Spain 1769-1803; by United States since 1803. Abbreviations: Est.—estimated and not official; S.—sporadic; M.—mild; E.—epidemic; V.—violent, and V. V., very violent; Y. F.—yellow fever; C.—cholera; Av.—average; U. S. C.—U. S. Census.

YEARS.	TOTAL POPULATION BY U. S. CENSUS, OFFICIAL.	TOTAL DEATHS BY BOARD OF HEALTH, &c., &c.	DEATHS TO EVERY 1000 POPULATION.	OCCURRENCE OF YELLOW FEVER AND CHOLERA.	REMARKS—ESPECIALLY AS TO EVENTS SUPPOSED TO INFLUENCE POPULATION AND MORTALITY.
1769	3190	.....	.....	Y. F. S. perhaps.....	Y. F. E. Biloxi 1702, and Mobile 1705.
1785	4980	.....	.....	.....
1788	5331	.....	.....	.....
1787-97	(10 yrs)	*488 av.	*69.5 av.	Y. F. S. 1791.....	*Estimates given by Dr. E. H. Barton for the ten years.
1796	.....	.....	.....	First Y. F. epidemic.....	1794-97 Carondelet Canal dug.
1797	8036	.....	.....	.....	1801—Y. F. S.
1799 & 1800	.....	.....	.....	Y. F. epidemics.....	1807-8—Embargo.
1801-4-9	.....	.....	.....	“	1812-13-14—War.
1810	17242	.....	.....	.....	*Estimates of Dr. E. H. Barton for the six years.
1811-15	(6 yrs)	*989 av.	*34.2 av.	1811 and '12 Y. F. E.....	Inundation in the spring by crevasse. Year very healthy.
1816	.....	.....	.....	.....	1142 total deaths in five months, viz., August to December inclusive
1817	.....	.....	.....	Y. F. V. E.....	485 deaths in September.
1818	25,000 est.	1151	46.	Y. F. E.....	*Estimates of Dr. E. H. Barton of annual averages.
1819	26,000 est.	2190	84.2	Y. F. E.....	
1816-20	.....	*1517 av.	*39.5 av.	“	
1820	27176	.....	.....	Y. F. E.....	
1822-25	(4 yrs)	*2085 av.	*47.2 av.	Y. F. E. 1822-4-5.....	*Dr. Barton's estimates: Quarantine 1821-25.
1826-30	.....	*1707 av.	*36.1 av.	“ 1827-8-9.....	1824-28—Gormley's Canal dug.
1830	46310	.....	.....	“	1825-28—Melpomene Canal deepened and cleaned. [Year healthy
1831-3-4-5	.....	*3503 av.	59 2 av.	Y. F. E. V. 1833, E. '34-5.....	1831—Inundation in Aug. to Dauphin St. by violent storm fr'm Lake
1832	.....	.....	.....	Y. F. E. and V. V. C. E.....	1832-First appearance of Cholera Oct. 25th. 1032-5.—New Basin
1836-8-9-40	(4 yrs)	*2942 av.	*39.6 av.	V. Y. F. E. 1839, S. C. 1835, 1836.....	*Dr. Barton's estimates. [and N. O. Canal dug
1837	.....	U.	.....	V. Y. F. E.....	Inundation in October by violent storm from Lake.
1840	102,193	.....	.....	.....	102,193 pop. U. S. C. of City and Parish of Orleans, & 3207 for Lafay
1841-5	.....	*3993 av.	*44.8 av.	1841 V. E., 1842-3, E.....	*Dr. Barton's average estimates.
1845	108,000 est.	2783	25.7	.....
.....	.....	.....	.....	.....	For all the years which follow, the population and deaths are fo
.....	.....	.....	.....	.....	N. O. and Lafayette, which were not legally consolidated until 1852
.....	.....	.....	.....	.....	N. B.—“Immigration from abroad averaged about 20,000 per annu
.....	.....	.....	.....	.....	(1845-50) very few arriving in summer and fall.”—Barton.

FOR NEW ORLEANS AND LAFAYETTE.

{ Pop. this year as subsequently estimated from U.S.C.; deaths estimated from reports of 1770 deaths for last four months.
{ Inundation in April to Burgundy st., by violent storm from Lake.
1846-7-8—War with Mexico.

1846-7-8—War with Mexico.
Cholera began December 11th; numerous California travelers.

Inundation 6 weeks, May & June, to Dauphin st. by Sauvé's erevasse.
Population 130,565, viz: New Orleans 116,375 and Lafayette 14,190.

7849 to 7970 deaths by yellow fever.

March 1855.—The present Quarantine and Board of Health established

War began against United States.

War.
Captured by United States April 26th, 1862.

Cholera began July 14th.

Oct. 1st. week—Inundation from Lake extending for a few hours
[as high as Burgundy street.

*First half year, January to June.

1846	117,000 est.	4500 est	38.5	Y. F. S.	Y. F. S.	made from reports of 170 deaths for last four months.
1847	120,000 est.	9336	77.8	V. Y. F. E.	V. Y. F. E.	(Inundation in April to Burgundy st., by violent storm from Lake
1848	123,500 est.	8191	66.8	M. Y. F. E. and V. C. E.	M. Y. F. E. and V. C. E.	1846-7-8—War with Mexico.
1849	127,000 est.	10661	84.	"	"	Cholera began December 11th; numerous California travelers.
1850	130,565 U.S.C.	8086	62.	V. C. E. and Y. F. S.	V. C. E. and Y. F. S.	Inundation 6 weeks, May & June, to Dauphin st. by Sauvé's crevasse.
Tot'l for 5 yrs	618,065	40774	66.			Population 130,565, viz: New Orleans 116,375 and Lafayette 14,190
1851	133,940 est.	7275	54.3	Y. F. S., C. M. E.	Y. F. S., C. M. E.	
1852	137,400 est.	8693	63.3	Y. F. M. E., C. E.	Y. F. M. E., C. E.	7849 to 7970 deaths by yellow fever.
1853	140,900 est.	15633	111.	Great E., C. M. E.	Great E., C. M. E.	
1854	144,600 est.	10800 est	74.7	V. Y. F. E., C. E.	V. Y. F. E., C. E.	March 1855—The present Quarantine and Board of Health established.
1855	148,400 est.	9000 est	60.7	"	"	
Tot'l for 5 yrs	705,200	51401	72.8			
1856	152,025 est.	5689	37.3	Y. F. S.	Y. F. S.	
1857	156,180 est.	5581	35.7	"	"	
1858	160,240 est.	11721	73.1	V. Y. F. E.	V. Y. F. E.	
1859	164,400 est.	6847	41.6	Y. F. S.	Y. F. S.	
1860	168,675 U.S.C.	7341	43.5	"	"	
Tot'l for 5 yrs	301,820	37179	46.3			
1861	173,000 est.	5772	33.3	No Y. F.	No Y. F.	War began against United States.
Grand Tot'l for 16 yrs.—1846-61 both inclusive.	2,298,090	135,026	58.7			
Grand Tot'l for 13 yrs.—1846-61, excluding the 3 estimated yrs, 46, 54, 55.	1,888,090	110,726	53.4			
1862	173,000 est.	1st 6 ms 2496	28.8	No Y. F.	No Y. F.	War.
1862-65				Y. F. S. 1863 and 1864.	Y. F. S. 1863 and 1864.	Captured by United States April 26th, 1862.
1866	200,000 est.?		39.5?	Y. F. S., C. E.	Y. F. S., C. E.	Cholera began July 14th.
1867	200,000 est.?	7900	50.?	V. Y. F. E., C. E.	V. Y. F. E., C. E.	
1868	200,000 est.?	5293	26.4?	Y. F. S., C. S.	Y. F. S., C. S.	Oct. 1st week—Inundation from Lake extending for a few hours [as high as Burgundy street.
Suppose pop. 1868.	230,000 est.		23.1?			
1869.	230,000?	*2899	25.2?			*First half year, January to June.

The preceding Table, No. 1, derived from every accessible source which pretends by official figures to establish the death rate of New Orleans, shows that from 1787 to 1862, it has varied from 25.7 to 111. per 1000, with a general average much over 50 per 1000. The following Table, No. 2, shows the influence of yellow fever and cholera on this death rate; and whether the assertion so generally credited in this city, that it is comparatively healthy when free from epidemics, is true or not.

TABLE No. 2.—*Annual and monthly mortality by Yellow Fever and by Cholera in New Orleans, 1796—1869. In the seventy-three years since the first epidemic of Yellow Fever, viz: 1796—1869, there have been thirty-five epidemics, in the following years, viz: 1796-9; 1800, 1-4-9; 1811-12-17-18-19; 1820-2-4-5-7-8-9; 1830-3-4-5-7-9; 1841-2-3-7-8-9; 1853-4-5-8; 1867. Of these, twelve at least were violent epidemics, viz: those of 1817-23-33-7-9-41-47; 1853-4-5-8; 1867. During the past fourteen years, viz: 1855-1869, there have been but two epidemics, viz: 1858 and 1867. N. B.—French embargo 1807-8; war with England 1812-14; Quarantine 1821-25. Quarantine which now exists was established March, 1855.*

YEARS.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Month of occurrence not known	TOTAL FOR YEAR.	REMARKS.
1817								304					519	823	First 2 cases May 7th and 12th; last December 9th.
1819														800-2900	
1833														1325	
1839														1500	
1841														{ av'g 5 ep- dm/cs 1100	
5 Epidemics—1837 } -9, 1841-2-3 }						1		4	54				89	148	[Deaths for N. O. alone: 1st case July 2 th.]
1844														2	
1845														160	
1846								1	8	118	33			2804	
1847							74	965	1100	198	12	10	545	1204	
1848						4	33	200	467	196	20		22	872	1st case July 6th.
1849								11	194	396	143	8		752	Deaths for N. O. alone, 1st case July 23
1850	1		2		1		4	62	33	4				107	" " " 1st death of season May 29th. There were 3 to 4 cases in C. II. in February.
Total for 5 years....	1		2		1	4	111	1239	1992	842	208	18	567	4695	
1851								8	6	2	1			17	Some say 1st death in 1st week Aug. Some report 1790 d this, 1st case May 22 1st death June 12th. 1st case June 19th.
1852							2	8	91	198	105	11	41	456	
1853	1				2	31	1521	5133	982	147	28	4		7849	
1854							29	532	1234	490	131	7		2425	
1855						5	382	1256	874	97	19	7		2670	
Total for 5 years....	1	0	0	0	2	38	1834	6967	3187	934	984	29	41	13417	
1856								14	40	16	4			74	1st case June 28th.
1857	1					1	1	1	8	95	82	8		200	1st undisputed case died Sept. 20th.
1858	2					2	132	1140	2204	1137	254	15		4853	1st case June 20th.
1859								1	59	28	3			91	
1860							3	7	5					15	1st case June 27th.
Total for 5 years....	3	0	0	0	0	3	136	1163	2216	1279	313	23		5235	
Total for 10 yrs, 1846-61														22347	
1861-62														None	A few cases occurred.
1863														Unknown.	" "
1864														"	" "
1865														Unknown.	" "
Total for 5 years....														Unknown.	
1866														118	1st case August 6th.
1867						3	11	255	1637	1072	163	26	U.	185	*213 soldiers out of 1100; 1st case 2d week of June.]
1868														5	
Total for 3 years....	0	0	0	0	0	3	11	200	1699	1072*	103*	26*	118	3907	

EPIDEMICS OF ASIATIC CHOLERA, 1832-48-66 — *This disease first appeared in New Orleans October 25, 1832, and M. HALPHEN, D. M. P., of New Orleans, reported to the Paris Academy of Medicine, that in the first twenty days there were 6000 deaths! It prevailed as a violent epidemic several months, and sporadically until early in 1836, when it finally disappeared. A glance at the record of Charity Hospital, in Table No. 4, does not indicate any great mortality for 1832, but a much greater for 1833-4-5. It has appeared twice since, viz: December 1848, and July 1866.*

YEARS.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Month not known	ANNUAL TOTAL.	REMARKS.
1832															
1833-36														Unknown	Began Oct 25th; very violent epidemic prevailed sporadically. Disappeared early in 1836.
1848														924	[1st case Dec. 11. Max. day Dec. 28, 52 cholera deaths.]
1849														3285	This total includes "cholera Asiatic," "cholera" & "cholera morbus."
1850	804	363	415	75	66	40	19	8	45	101	367	231		1851	
Total for 3 years														6060	
1851	30	29	11	108	121	131	135	14	5	9	82	23		658	Began first week of May.
1852	5				240	455	133	45	116	60	158	87		1319	
1853	25	3	2	11	9	14	5	1	U.	6	177	322		67	"Over 900 in last seven months."
1854	21	U.	U.		U.	U.	U.				4			about 950	Began about May 15th.
1855					235	570	49	7	13	4				883	
Total for 5 years														4447	
Total for 5 years 1856-1860														153	'Cholera' reported for 1856, 46 deaths; 1857-29; 1858-26; 1859-27; 1860-30. Total 5 years 153. In my detailed report closed with Cholera Morbus.
Tl for 16 yrs. '46-61														10,665	1st case July 14th.
1866	5	0	1	0	0	4	5-10	604	469	150			65	1294	
1867							36	39	15	37	234	210		531	
1868														103	
Total for 3 years														1978	

By table No. 1 it will be seen that for the sixteen years, 1846-61, the total death rate was 58.7 per 1000 population.

By this table No. 2, it will be seen that for the sixteen years 1846-61, the total deaths by Yellow Fever and Cholera were 34,012, viz: Yellow Fever 23,347, and Cholera 10,665. Now deducting these we have as the death rate of sixteen years 1846-61, excluding the Yellow Fever deaths, 48.6 per 1000 population.

Death rate of sixteen years 1846-61, excluding both Yellow Fever and Cholera deaths, 44.0 per 1000 population.

The death rate of the five healthy years 1856-60, was 46.3 with, and 39.7 without yellow fever. It will be seen subsequently that the deaths *directly* by drunkenness average 122 per annum, which appears by my researches (*insufficient*) to be 4-6 times greater than in other cities of United States; and also that the deaths by casualties of all kinds, (violence, accidents etc.) averaged 290 per annum, which appears to be more than double the amount occurring in other cities. The excess of the above deaths may be chargeable to the morals, but certainly not to the climate of the place; and therefore in studying the latter, the excess of such deaths should be deducted. This would reduce the non-epidemic death rate of 39.7 to about 38. only. Some have claimed that a large number of deaths by consumption, occurring in strangers who came here to die, should be deducted. The monthly report of the years 1856-60 (see Table No. 9) proves conclusively that this is not true, and that New Orleans is not entitled to any such comparative claim. For the excess of such deaths from November to May is comparatively very small; and that is the period of the year, when any such strangers would be in New Orleans. Again it has been claimed that a large excess of still-births should be deducted. Subsequent researches on this subject prove conclusively, that this claim also is comparatively false. (See Table No. 20.)

Those claiming deductions have generally reasoned very loosely; forgetting the main point that similar claims existed elsewhere, and that only an excess over the comparative average could in any case be deducted; and they have failed to learn by arithmetical test how very large a deduction is needed to produce any marked diminution of the annual death rate.

TABLE NO. III.

Showing the Death Rate of various Countries and Cities, for comparison with New Orleans—the facts having been derived, as to Cities in the United States, from similar sources, and in comparable circumstances.

NAME OF PLACE.	PERIOD CALCULATED.	NO. OF ANNUAL DEATHS PER 1000 POPULATION.	REMARKS.
Russia	1 year, viz., 1842.....	35.90	Those marked thus * are believed to be very reliable.
Austria	3 years, viz., 1839-42....	29.95	
Prussia	3 " " 1838-41....	26.58	
United States.....	1 year " 1850	25.44	
*France.....	44 years, viz., 1817-60...	23.00 to 24.00	Min. 11, max 45.
*England.....	4 " " 1838-42....	22.07	
*England.....	10 " " 1850-60....	20.00	
Tropical malarial regions gen'rally	.....	46.00 to 50.00
*Massachusetts ...	1 year, viz., 1860.....	19.60	Until properly drain'd [and supplied with [water.
CITIES.			
*Vienna	1 year, viz., 1865.....	31.7	See remark <i>infra</i> . Extremes 21. to 31. for epidemics inclusive
St. Petersburg....	1 " " 1858.....	41.	
Moscow	1 " " 1858.....	38.	
*Rotterdam	Usual annual average...	34.	
Turin	1 year, viz., 1858.....	26.	Highest 44.4.
Berlin	1 " " 1861.....	25.	
*Paris	1862-66.....	25. to 29.	
*London.....	10 years, viz., 1850-60...	24.	
London.....	15 " " 1848-62....	Population 1860, 212,- [418; 1868 — deaths [6178, voters 30,713.
Boston.....	60 " " 1725-1864	28.6	
*Boston.....	Average at present time.	23.	
New York	39 years, viz., 1821-63...	31.7	
*New York.....	25 " " 1840-66...	25.7 to 30.	Simonds. Barton. [² 55, '56, '60. U.S. Census for 49, '50. Chaillé. "
Philadelphia.....	43 " " 1821-63...	23.5	
*Philadelphia.....	1 " " 1860	20.3	
Baltimore.....	38 " " 1818-63...	25.9	
Baltimore.....	1 year " 1868 ...	26 0	"
*Cincinnati.....	1 " " 1867 ...	24.	
*Cincinnati.....	1 " " 1868 ...	14.3	
St. Louis.....	1 " " 1867 ...	28.4	
St. Louis.....	1 " " 1868 ...	22.3	"
Charleston.....	27 years, " 1822-48...	25.7	
Savannah	8 " " 1840-47...	41.6	
Memphis.....	3 " " 1850-54...	57.4	
New Orleans.....	4 $\frac{1}{3}$ years, viz., 1846-50	81.00	"
" "	4 " " 1846-50.	69.30	
" "	4 $\frac{2}{3}$ " " 1849-60.	58.20	
" "	16 " " 1846-61.	58.70	
" "	5 " " 1856-60.	46.36	"
" "	1 year, " 1868.....	26.40	

Highest mortality in any district of London during *Cholera* of 1868, was 36. per 1000.

To this record of New Orleans may be added that the total death rate of the four non epidemic years 1856-57-59-60 was 39.70.

Death rate of the six months, November to May, of the four above years was 36.80.

Death rate of the six months, May to November, of the four above years was 42.50.

Now, it must be borne in mind, that if the varying number of the population justifies, as it probably does, a considerable diminution of the above winter death rate, so it justifies an augmentation of the above summer non-epidemic death rate of 42.50.

As this article is not designed to support the preconceived views of the writer or any one, but simply to report all the facts; it will be well to give the only kind of argument ever used to prove that New Orleans has a really small death rate. I select the ablest I find, which is claimed as characterizing "*the ratiocinative and inductive ability*" of all the scientific contributions of Dr. W. P. Hort, U. S. Mint, New Orleans. As will be seen, (Table 1), the death rate of 1850 was 62 per 1000. Dr. Hort grants the 8086 deaths in 1850, and then follows his argument, viz:

Population.....	130,000	Residents.
	125,000	Strangers from the West.
	125,000	Strangers from the South.
	25,000	Californians en route.

Grand total of population...405,000 which yields, says Dr. Hort, 26.5 per 1000 (arithmetic makes is less than 20.) as the death rate of 1850, instead of 62.

That those who grant this a fair comparative argument, should claim that any thing can be proved by figures is not strange; that they should term it science is very strange, and as a reply they deserve to be reminded of Charles Lamb's response to one of his criticizers, that he wrote to amuse and instruct, but had never claimed the ability to furnish others with the brains necessary to comprehend either his wit or instruction.

The two following tables compiled from the Charity Hospital Reports and Records are introduced for their historical and other interest to the physicians of New Orleans. Table No. 4, as far as the year 1851, has been several times published. It has been completed to date chiefly by my friend, Dr. A. Deloffre. The following facts should be borne in mind: All deaths in the Charity Hospital form part of the gross total of the annual mortality in the city, and constitute from say one-fifth to one-tenth of the whole. The varying number of annual admissions, whilst dependant in part on the amount of sickness in the city, has also depended on the amount of immigration, and also at times very greatly on the finances of the institution, and the varying liberality of different administrations. The number of foreign birth admitted is extremely large, that of natives of Louisiana excessively small. Therefore it has been claimed that the Charity Hospital was a great foreign institution located in our midst, whose deaths ought to be deducted from those in the city to estimate fairly its death rate. It must be borne in mind, however, that every commercial city in the United States has such foreign institutions; that the resident foreign population of New Orleans is over one-third of the whole, and composes a large proportion of the most ignorant, most needy, and least provident of it; also that this portion of the foreign population accepts charity with less shame, than the native born. Of course it will be understood that these remarks are not applied to our whole or even greater part of the population of foreign birth. None grant more cordially than I that very many of our best citizens are of this class, and neither "Know nothing-ism" nor "Anti-Catholic-ism" are parts of my creed.

The death rate of the Charity Hospital is, compared with other hospitals, very high. From 1822 to 1850 it varied from 93. to 339. per 1000, with a general average of 164.5, or 1 death to about every 6 admissions. In the five years 1856-60 the deaths were 1 to about every 8 cases treated; and nearly the same for the five years 1861-68. It must be remembered that a large number, probably not less than one-fifth, of those who die are admitted in articulo mortis. Dr. Fenner, p. 250, vol. 1, So. Med. Reports, records that of 12,381 deaths for the 10 years, 1840-49, 2,666 were admitted "moribund."

Negros seem to have been first admitted in 1839, and averaged about 100 annually to 1863. The closure of the Freedmens' (U. S. Marine) Hospital early in 1869 has caused a large augmentation of the negro patients.

It will be found that the "discharged" *plus* the "died" do not always correspond to the "admitted" *plus* the "remaining" which is due to the faulty method of reporting, and is not an error of mine.

TABLE NO. IV.

*Record of the Charity Hospital, New Orleans, 1820 to 1869.
Founded in 1786. The present edifices erected in 1832.*

ALL DISEASES.					YELLOW FEVER.					CHOLERA ASIATIC.	
	Remain- ing.	Admitted [*]	Disch'd	Died.	1st Case.	Last Case	Admitted	Disch'd	Died.	Disch'd	Died.
1820	40	1669	..	..	....	....	..	..	..	..	..
1821	46	1308	..	..	....	....	..	..	..	..	..
1822	82	1685	1116	573	Sept 3	Dec 31	348	98	239	..	..
1823	78	1288	983	283	Sept 11	....	1	0	1	..	..
1824	100	..	..	..	Aug 4	Nov 13	167	59	108	..	..
1825	70	1262	989	218	June 23	Dec 19	94	40	59	..	..
1826	125	1373	1212	196	May 18	Nov 18	26	19	5	..	..
1827	90	1857	1549	304	July 17	Dec 5	372	263	109	..	..
1828	94	2434	1989	401	June 19	Dec 10	280	160	130	..	..
1829	158	2559	2065	483	May 23	Nov 29	435	220	215	..	..
1830	148	2768	2306	424	July 24	Nov 29	256	139	117	..	..
1831	116	3749	3149	409	June 9	Oct 7	3	1	2	..	..
1832	309	2170	1703	568	Aug 15	Oct 25	26	8	18	146	73
1833	169	3851	2617	1114	July 17	Nov 17	422	212	210	..	..
1834	262	5841	4745	1152	Aug 28	Nov 22	150	55	95	..	..
1835	265	6205	4999	1226	Aug 24	Nov 27	505	221	284	..	..
1836	222	4754	4163	585	Aug 24	Oct 25	6	1	5	..	..
1837	228	6103	4640	1420	July 13	Nov 28	998	556	442	..	..
1838	271	4687	3890	683	Aug 25	Nov 1	22	5	17	..	..
1839	239	4833	3611	955	July 23	Nov 17	1086	634	452	..	..
1840	267	5041	4370	619	July 9	....	3	0	3	..	..
1841	314	4380	3693	1156	Aug 2	Dec 8	1113	520	594	..	..
1842	..	4404	3516	761	Aug 4	Nov 26	410	214	211	..	..
1843	..	5013	3672	1041	July 10	Dec 31	1053	609	487	..	..
1844	..	5846	5059	713	Sept 4	Nov 25	150	88	83	..	..
1845	383	6136	5446	563	Aug 10	Aug 10	1	1	0	..	..
1846	401	8044	7074	855	Aug 29	Dec 1	146	50	96	..	..
1847	427	11890	9369	2037	June 29	Dec 11	2811	1584	895	..	..
1848	829	11945	10010	1897	June 7	Dec 2	1234	806	420	..	..
1849	609	15558	12133	2745	July 28	Dec 4	1062	510	545	735	1122
1850	719	18476	15989	1884	Aug 23	Nov 16	9	6	4	189	530
1851	..	18420	16777	1871	Aug 1	Oct 9	7	5	2	90	292
1852	..	18.35	15057	2098	Aug 20	Nov 29	496	102	339	106	358
1853	..	13750	10733	3164	May 21	Nov 23	3212	1427	1890	41	115
1854	..	13192	9976	2702	July 2	Dec 1	2741	1460	1233	126	352
1855	..	12192	9701	2391	June 3	Dec 11	2191	1099	1099	123	225
1856	..	9432	8601*	974	Aug 10	Nov 3	98	47	51	..	..
1857	..	8897	714	1017	Sept 17	Dec 18	234	80	155	..	..
1858	572	11137	823	2290	June 16	Dec 23	2722	1331	1382	..	..
1859	644	12775	11257	1321	Aug 29	Nov 29	84	23	107	..	..
1860	730	140.0	12605*	1390	Aug 12	Nov 4	2	2	0	..	..
1861	891	8665	7918†	798	....	....	0	0	0	..	..
1862	..	6016	5532‡	719	....	....	....	..	..	..	..
1863	..	..	..	..	....	....	....	..	..	..	..
1864	373	4861	3999	812	....	....	2	1	1	..	..
1865	423	6466	5880	669	....	....	....	..	..	..	..
1866	640	9329	8108	1122	Aug 27	Nov 14	130	93	35	61	237
1867	738	8612	7960	1438	June 9	Dec 22	1493	808	672	14	70
1868	637	4981	4365	490	Oct 5	Oct 22	8	3	5	6	9
1869	660	¶	..	..	....	....	....	..	..	..	..

* Total in the "Official Report" is a false addition.

† Report for ten months, January to November 1.

‡ Report for one year, November 1861 to November 1862.

§ No reports for November 1862 to January 1864.

¶ Negroes admitted in much larger numbers than heretofore.

TABLE NO. V.

Charity Hospital Record of the following Diseases for 1832, and 1842 to 1869, excepting 1862, '3, '5 and '6 of which years no published Reports.

Year	VARIOLA.		MEASLES.		SCARLATINA.		SUN STROKE		Dengue		DIPH- THERIA.		REMARKS.
	Disch'rgd	Died.	Disch'rgd	Died.	Disch'rgd	Died.	Disch'rgd	Died.	Disch'rgd	Died.	Disch'rgd	Died.	
1832	1	0	0	0	0	0	0	0	..	..	..	..
1842	25	16	7	0	1	0	2	2	..	..	..	..
1843	27	16	0	0	0	0	0	0	..	..	..	..
1844	6	1	3	0	2	0	0	0	..	..	..	..
1845	0	0	4	0	2	0	0	0	..	..	..	..
1846	0	0	18	1	9	1	1	1	..	..	..	..
1847	2	0	15	0	0	0	2	4	..	..	..	..
1848	0	0	6	0	4	2	5	4	9	0	..	..
1849	42	22	0	0	2	0	8	2	0	0	..	..
1850	0	0	1	0	0	0	34	32	1	0	..	..
1851	37	8	1	0	2	0	13	16	2	0	..	..
1852	29	4	18	1	8	0	9	16	1	0	..	..
1853	5	0	32	1	6	2	8	12	0	0	..	..
1854	8	1	10	0	8	4	39	13	0	0	..	..
1855	20	1	7	1	9	7	6	5	0	0	..	..
1856	5	0	24	2	3	1	5	3	0	0	..	..
1857	8	0	49	6	3	1	0	1	0	0	..	..
1858	8	0	2	0	2	6	4	0	0	0	..	..
1859	0	0	7	0	9	4	2	10	0	0	5	0	Diphtheria appeared { in Mass. Rep't { in 1858.
1860	2	0	11	1	10	3	21	32	458	0	6	1	
1861	0	0	22	0	8	1	2	4	6	0	3	3	
1862	..	..	..	..	..	..	..	..	..	..	..	..	No Report published.
1863	..	..	..	..	..	..	..	..	..	..	..	..	"
1864	1	6	31	4	2	..0	1	1	0	0	1	6	No Report published.
1865	..	..	..	..	..	..	..	..	..	..	..	..	"
1866	..	..	..	..	..	..	..	..	..	..	..	..	"
1867	2	0	0	0	0	..0	0	0	3	0	2	0	
1868	1	0	0	0	1	1	0	0	0	0	1	0	
1869	..	..	..	..	..	..	..	..	..	..	..	..

REMARKS.—Dengue, says Barton, first appeared in the United States in 1820, and in New Orleans, says one of its oldest physicians, in 1829 or 1830. It prevailed in New Orleans especially in the summers of 1850 and 1860. Diphtheria first appeared in New Orleans in 1853 or 1854. Sun-strokes, were especially numerous in the city in August 1850, in June 1854 and in July 1860.

PART II.

Special Researches into the Vital Statistics of New Orleans for the five years 1856-60.

The five years 1856-60 have been selected for special study for reasons already given. The series of tables which follow illustrate the subject in every view permitted by the reports. These were very defective in many particulars, covered over seventy pages of columns of figures, and caused many weeks of labor, tedious beyond expression. The reduction of the alphabetical classification, which so uninstructingly prevails in these reports, to the nomenclature and classification of the Royal College of Physicians, greatly augmented the labor. The especial attention of the reader is called to this classification. It is a modification only of, and is readily comparable with, the classification of Registrar Gen'l. Farr, of England, which has been generally used in this country. All future English statistics, and it is hoped American also, will conform to the nomenclature and classification adopted in this article. It is to be understood that my report is by no means in exact accord with this "Nomenclature of Diseases." The main features are the same, but in some cases it was deemed impolitic if not impracticable to alter the terms used in the original reports. These, as will be seen, are often most unsatisfactory and uninformative. The causes of death given in many cases would be most discreditable to the profession, if certificates of death were given by physicians only, as should be the case, instead of by almost any and every body as is the case in New Orleans. In regard to many of these diagnoses as recorded by me, I would simply recall Byron's couplet.

"The four first rhymes are Southey's every line;
For God's sake, reader! take them not for mine!"

A discrepancy exists between the numbers of deaths reported in the following tables, and those given for the same years in Table No. 1. This discrepancy is due to the fact, that whilst the report for 1856 gives the total mortality of the year as in Table No. 1, yet it singularly omits any report of the month December, 1856. Therefore I was compelled to take December 1855 to complete the year 1856 with twelve months. Thus the years reported

subsequently are in truth December 1st, 1855, to November 30th, 1856, with 1857, '58, '59 and 1860, each beginning and ending January 1st.

On examining table No. 6, there will be found eight columns of figures. Of these the first two are for the whole city, one for the deaths and the second merely for the convenience of obtaining from the first the total by classes and associated diseases. The six last columns are exclusively for the charity hospital;— and the last three of these solely for the more convenient and instructive addition of the first three. It should be recalled, that the deaths in the charity hospital are a part of the deaths given for the city. The readers who take no interest in the special study of table No. 6 will find that the much briefer tables, Nos. 7 and 8, are instructive abbreviations of No. 6.

TABLE NO. 6.

*Mortality Report of New Orleans and its Charity Hospital for the
Five Years, 1856-60, consolidated.—Nomenclature and Classifi-
cation of the Royal College of Physicians.*

Population of New Orleans by U. S. census.....	1850.....	130,565
	(estimated), 1855.....	148,375
	1860.....	168,475
Estimated population for five years, 1856-1860		801,825
Deaths from all causes :		
Total deaths in New Orleans.....		37,133
Of these, deaths in the Charity Hospital ^o		6,992
Discharged in Charity Hospital.....		49,300
Total cases in Charity Hospital for 5 years.....		56,292

CLASS.	ORDER.	DISEASES.	TOTAL FOR 5 YEARS, 1856-1860.			
			Deaths in N. O.	Deaths in C. H.	Discharges in Charity Hospital.	Total cases in Charity Hospital.
1		General Diseases A*.....	7465	2400	17622	20022
2		General Diseases B†.....	6806	1123	6476	7599
3		Local Diseases‡.....				
1		Nervous system.	5822	431	1039	1370
2		Eye.			1283	1283
3		Ear and nose	1	1	41	42
4		Circulatory system.....	699	118	240	358
5		Absorbent "			38	38
6		Ductless glands.....			2	2
7		Respiratory system.....	2619	471	2206	2677
8		Digestive "	6553	1606	7033	8639
9		Urinary || " .....	124	64	904	968
10		Generative "	186	20	1184	1204
11		Locomotor "	20	4	231	235
12		Cellular tissue.		5	10	15
13		Cutaneous§.....	30	26	2652	2678
4		Conditions unclassified.....	3696	147	503	650
5		Poisons¶.....	*643	358	1786	2144
6		Injuries.				
1		General injuries.	1125	42	236	278
2		Local "	328	201	4009	4201
7		Surgical operations.**.....	4	6	85	91
8		Parasites.	30	1	13	14
9		Congen'l malformat'n.....	16			
10		Condit's unclassifiable.....	966	68	1716	1784
		Totals	37133	6992	49300	56292

^oDeaths in the Charity Hospital are included in deaths in city.

*"Zymotic, apt to be epidemic."

†"Constitutional, apt to be inherited." 533 deaths in New Orleans of "Dropsy"

‡ 2031 deaths in New Orleans of "Infantile Convulsions"; 947 of "Tris. Nascent." and 47 of "Congest. of Brain"; 493 cases in Charity Hospital of "Neuralgia."

|| 773 cases in Charity Hospital of "Gonorrhœa."

§ 2328 cases in Charity Hospital of Ulcers, Abscesses, Boils, etc.

¶ 610 deaths in New Orleans of Alcoholismus.

** The very small numbers given, prove conclusively how very defective are the "Official Reports" as to Surgical Operations.

N. B.—The remainder of Table No. 6 consists of a detailed report of the preceding general summary on page 36.

TABLE NO. 6—CONTINUED.

Class. Order.	DISEASES.	City for 5 Years.		Charity Hospital for 5 years.					
		Deaths.	Deaths by Classes	Deaths.	Dischar- ges.	Total Cases.	Deaths.	Dischar- ges.	Totals.
1	Smallpox	262	.....	.....	23	23	.....	.....	.....
	Varioloid	16	.....	1	32	33	.....	.....	.....
	Measles*	236	.....	9	93	102	.....	.....	.....
	Scarlatina†	497	.....	13	34	47	.....	.....	.....
	Other Exanthemata	2	.....	.....	11	11	.....	.....	.....
			1013				23	193	216
	Diphtheria ‡	398	.....	1	11	12	.....	.....	.....
	Whooping cough	217	.....	5	21	26	.....	.....	.....
	Mumps .....	.....	.....	.....	3	3	.....	.....	.....
	Influenza	1	.....	1	45	46	.....	.....	.....
			516				7	80	87
	Plague.....	1	.....	.....	.....	.....	.....	.....	.....
	Cholera ||.....	1	.....	1	.....	1	.....	.....	.....
	Gangrene	71	.....	16	6	22	.....	.....	.....
	Erysipelas.....	84	.....	28	209	237	.....	.....	.....
	Puerperal fever.....	59	.....	4	3	7	.....	.....	.....
	Pyæmia.....	11	.....	1	.....	1	.....	.....	.....
			227				50	218	268
	Typhus fever.....	68	.....	28	34	62	.....	.....	.....
	Cer-spinal fever.....	3	.....	.....	.....	.....	.....	.....	.....
	Typhoid, Enteric, Contd., Adyn. fevers.....	802	.....	346	687	1033	.....	.....	.....
	Brain and Nervous fever..	95	.....	.....	.....	.....	.....	.....	.....
			968				374	721	1095
	Fever.....	80	80	.....	41	41	.....	41	41
	Malarial fever—Ague :								
	Int. Remit., etc.....	333	.....	99	14350	14449	.....	.....	.....
	Congest. Chills, Fever‡	819	.....	145	63	208	.....	.....	.....
	Pernicious Fever.....	163	.....	30	15	45	.....	.....	.....
			1315				274	14428	14702
	Yellow fever¶	5242	.....	1672	1483	3155	.....	.....	.....
	Dengue**	4	.....	.....	458	458	.....	.....	.....
			5246				1672	1941	3613
	Totals of class 1.....	.....	7465	.....	.....	.....	2400	17622	20022
2	Rheumatism	81	.....	22	2362	2384	.....	.....	.....
	Gout	4	.....	.....	7	7	.....	.....	.....
	Syphilis.....	43	.....	27	2475	2502	.....	.....	.....
	Cancer	232	.....	33	74	107	.....	.....	.....
	Tumors	11	.....	3	16	19	.....	.....	.....
	Leprosy (Elephantiasis)..	4	.....	2	6	8	.....	.....	.....
	Scrofula†	73	.....	24	129	153	.....	.....	.....
	Phth. Pul. (tuberculosis)	3727	.....	940	1037	1977	.....	.....	.....
	Hectic fever.....	27	.....	4	2	6	.....	.....	.....
	Diabetes	4	.....	1	12	13	.....	.....	.....
	Purpura and Scurvy.....	19	.....	6	65	71	.....	.....	.....
	Anæmia and Chlorosis ...	48	.....	18	183	201	.....	.....	.....
	Dropsy and CEdema.....	533	.....	43	108	151	.....	.....	.....
	Totals of class 2.....	.....	6806	.....	.....	.....	1123	6476	7599

* 104 deaths in 1857.

|| Charity Hospital, 1857.

** All in 1860.

† 321 deaths in 1859-60.

‡ 328 deaths in 1858.

†† 9 of tub. mesent. and 1 of rickets.

‡ All in 1859-60.

¶ 4855 deaths in 1853.

TABLE NO. 6—CONTINUED.

Class.	Order.	DISEASES.	City for 5 Years		Charity Hospital for 5 years.					
			Deaths	Deaths by Classes	Deaths.	Discharges	Total Cases	Deaths.	Discharges.	Total.
3	1	Disease of brain	37							
		Congestion of brain	647		67	17	8			
		Encephalitis	41		8	4	1			
		Meningitis	473		15	18	32			
		Cerebritis, Soft'ning, Absc	92		18	10	28			
		Apoplexy	584		38	12	50			
		Sun-stroke*	127		50	34	84			
		Hydrocephalus	169			2	2			
		Mania, Monomania, etc...	24		5	9	104			
		Disease of spine	40		3	9	1			
		Paralysis	118		38	171	209			
		Tetanus	315		41	6	47			
		Tris. nascent	947		5	1	0			
		Infant. convulsions	2031							
		Convulsions	62		14	13	27			
		Epilepsy	97		24	85	109			
		Hydrophobia	5							
		Par. agit., Chorea, Hyster.								
		Catalepsy	6		1	69	70			
		† Neuralgias	7		4	489	49			
		Total of nervous diseases		5822				381	1039	1370
3	2	Eye diseases†				1283	128			
		Totals							1283	12-3
3	3	Diseases of ear and nose||	1		1	41	4			
		Totals		1				1	41	42
3	4	Pericarditis	36		11	11	2			
		Hydropericardium	2		2					
		Endocarditis			1	11	1			
		Heart disease, Valv. Or-								
		ganic, etc	501		78	152	210			
		Angina Pect	40		2	3				
		Cyanosis	9							
		Aneurism	39		14	9	2			
		Phlebitis	5		1	7				
		Phleg. dolens	1		1	2				
		Varices				55	57			
		Gangrena senilis	7		8	1				
		Hæmorrhage	59			9	9			
		Totals Dis. of Circulation		699				118	240	358

* 72 deaths in 1860, of which 57 in July. Also in July there were 62 deaths by apoplexy, which is an excess of 52 over the monthly average. Therefore deaths by sunstroke were probably much more than reported. † All, except those of digestion. ‡ 124 other syphilit., serof, and rheumat. eye diseases. || 1 death of "epistaxis."

TABLE NO. 6—CONTINUED.

Class.	Order.	DISEASES.	City for 5 years.		Charity Hospital for 5 Years.					
			Deaths.	Deaths by CHOLERA.	Deaths.	Dischar ges.	Total Cases.	Deaths.	Dischar ges.	Total.
2	5	Inflam. and Enlarg. of lymphatics and lymphatic glands.....				38	38			
		Totals							38	38
3	6	Goitre.....				2	2			
		Totals.....							2	2
3	7	Diseases of larynx.....	6		8	67	75			
		Croup	433							
		Catarrh.....	153		7	466	473			
		Bronchitis.....	352		61	795	856			
		Asthma	68		8	44	52			
		Emphysema			8	13	21			
		Disease of lungs.....	24		6	1	7			
		Pneumonia	1164		300	501	801			
		Abscess and Gangrene....	42		11	3	14			
		Congestion of lungs..	179		18	4	22			
		Hæmoptysis.....	68		5	26	31			
				2489				48	1920	2352
		Pleurisy.....	52		28	277	305			
		Empyema.....	11		3	3	6			
		Hydrothorax.....	67		3	4	7			
		Hydro-Pneumo-Thorax ..			5	2	7			
				130				39	286	325
		Totals.....		2619				471	2206	2677
3	8	Dis. of mouth & tongue*...	8		6	16	22			
		Teething	897		3	5	8			
		Dis. of throat & pharynx†	165		2	103	105			
		“ of salivary glands‡	10			42	42			
		“ of œsophag. & stom...			1	3	4			
				1080				12	169	181
		Dyspepsia, Gastrody., Enteralgia, etc.....	8	8	9	456	465	9	456	465
		Hæmatemesis.....	11			5	5			
		Uleer, Softening, Gang. of stomach.....	21		4		4			
		Gastritis.....	179		29	286	315			
		Gastro-enteritis.....	341		37	42	79			
		Enteritis.....	625		33	92	125			
		Inflam. and Congest. of bowels	148							
		Disease of bowels.....	24							
		Cholera, Cholera morbus, Colic, Cramps||.....	298		39	198	237			
		Cholera Infantum.....	517		17	2	19			
		Diarrhœa.....	1442		713	3327	4040			
		Dysentery.....	1187		404	1104	1508			
				4793				1276	5056	6332

* 7 deaths of caner. oris.

† 10 deaths of parotitis.

‡ 95 deaths of inflammation of throat in 1858.

|| Of these 298 deaths, 147 are reported as “cholera.”

TABLE NO. 6—CONTINUED.

Class.	Order.	DISEASES.	City for 5 years.		Charity Hospital for 5 Years.					
			Deaths.	Deaths by Classes.	Deaths.	Discharges.	Total Cases.	Deaths.	Discharges.	Total.
3	8	Hernia .....	.....	.....	3	102	105	.....	.....	.....
		“ strangulated	22	.....	3	24	27	.....	.....	.....
		Intest. Stric., Intussusc. ....	.....	.....	.....	.....	.....	.....	.....	.....
		Obstruct	7	.....	3	7	10	.....	.....	.....
		Constipation	11	.....	1	281	282	.....	.....	.....
		Hæmorrhoids .....	.....	.....	2	121	122	.....	.....	.....
		Fistula, Prolaps, Fissures of anus and rectum .....	.....	.....	.....	99	99	.....	.....	.....
		.....	.....	40	.....	.....	.....	12	631	646
		Biliary derangement .....	.....	.....	2	254	256	.....	.....	.....
		.....	.....	.....	.....	.....	.....	2	254	256
		Disease of liver	28	.....	1	.....	1	.....	.....	.....
		Hepatitis	224	.....	47	89	136	.....	.....	.....
		Congest. and Enlargem't	22	.....	1	15	16	.....	.....	.....
		Abscess	62	.....	19	4	23	.....	.....	.....
		Cirrhosis	47	.....	35	22	57	.....	.....	.....
		Jaundice	54	.....	27	133	160	.....	.....	.....
		.....	.....	437	.....	.....	.....	130	263	393
		Dis. of pancreas & spleen	7	.....	5	26	31	.....	.....	.....
		.....	.....	7	.....	.....	.....	5	26	31
		Peritonitis	170	.....	45	15	60	.....	.....	.....
		Ascites	18	.....	115	160	275	.....	.....	.....
		.....	.....	188	.....	.....	.....	160	175	335
		Totals of dis. of digest. organs .....	.....	6553	.....	.....	.....	1606	7033	8639
		<i>Dis. of Urinary System—</i>	.....	.....	.....	.....	.....	.....	.....	.....
3	9	Albumin. Nephritis, etc.	81	.....	50	71	121	.....	.....	.....
		Diseases of bladder	9	.....	1	24	25	.....	.....	.....
		Cystitis	28	.....	5	33	33	.....	.....	.....
		Calculus	4	.....	.....	6	6	.....	.....	.....
		Rupture urethra & bladder	2	.....	3	2	5	.....	.....	.....
		.....	.....	124	.....	.....	.....	59	136	195
		Gonorrhœa, Balanitis, Gleet .....	.....	.....	3	469	469	.....	.....	.....
		Phimosis and Paraph. ....	.....	.....	1	19	20	.....	.....	.....
		Epididym. and Orchitis .....	.....	.....	1	192	193	.....	.....	.....
		Strict. of urethra .....	.....	.....	3	88	91	.....	.....	.....
		.....	.....	.....	.....	.....	.....	5	768	773
		Totals of dis. of urinary syst. ....	.....	124	.....	.....	.....	64	904	968
3	10	<i>Dis. of Generative System</i>	.....	.....	.....	.....	.....	.....	.....	.....
		Dis. of penis and scrotum	2	.....	2	2	4	.....	.....	.....
		“ of testicle, prostate & cord .....	.....	.....	1	55	56	.....	.....	.....
		.....	.....	2	.....	.....	.....	3	57	60
		Infl. and dropsy of ovary	1	.....	.....	2	2	.....	.....	.....
		Diseases of vagina .....	.....	.....	3	36	39	.....	.....	.....
		Leucorrhœa .....	.....	.....	.....	46	46	.....	.....	.....
		Infl. and dis. of womb	37	.....	4	51	55	.....	.....	.....
		Prolapsus of womb .....	.....	.....	.....	47	47	.....	.....	.....
		Amenorrhœa .....	.....	.....	3	58	61	.....	.....	.....
		Dysmenorrhœa	3	.....	2	41	43	.....	.....	.....
		Menorrhagia .....	.....	.....	.....	21	21	.....	.....	.....
		.....	.....	41	.....	.....	.....	12	302	314

TABLE NO. 6—CONTINUED.

Class.	Order.	DISEASES.	City for 5 Years.		Charity Hospital for 5 years.					
			Deaths.	Deaths by Classes	Deaths.	Discharges	Total Cases.	Deaths.	Discharges.	Total.
		Abortion.....	.....	.....	.....	26	26	.....	.....	.....
		Pregnancy.....	.....	.....	.....	236	236	.....	.....	.....
		Parturition.....	78	.....	.....	550	550	.....	.....	.....
		Puerp. & Uterine Hæmo-	32	.....	1	7	8	.....	.....	.....
		Puerperal Convulsions...	38	.....	2	2	4	.....	.....	.....
		“ Mania.....	.....	.....	2	4	6	.....	.....	.....
				148				5	825	830
		Totals of dis. Generat System.....	.....	186	.....	.....	.....	20	1184	1204
3	11	<i>Dis. of Locomotory Syst'm</i>								
		Disease of Bones.....	12	.....	.....	165	165	.....	.....	.....
		“ Joints.....	.....	.....	2	61	63	.....	.....	.....
		Psoas, Lumbar and other such diseases.....	8	.....	2	1	3	.....	.....	.....
		Other diseases.....	.....	.....	.....	4	4	.....	.....	.....
		Totals of dis. locomotory sys'm.....	.....	20	.....	.....	.....	4	231	235
3	12	<i>Dis. of Cellular Tissue...</i>								
		Dis. of Cellular Tissue.....	.....	.....	5	10	15	.....	.....	.....
		Totals.....	.....	.....	.....	.....	.....	5	10	15
3	13	<i>Dis. of Cutaneous System.</i>								
		Abscesses.....	11	.....	11	516	527	.....	.....	.....
		Boils and Carbuncle.....	4	.....	1	105	106	.....	.....	.....
		Ulcers.....	12	.....	11	1684	1695	.....	.....	.....
				27				23	2305	2328
		Roseola*.....	.....	.....	.....	17	17	.....	.....	.....
		Scarbies, Itch.....	.....	.....	.....	45	45	.....	.....	.....
		Other Eruptive diseases...	3	.....	3	285	288	.....	.....	.....
				3				3	347	350
		Totals of dis. cutaneous system.....	.....	30	.....	.....	.....	26	2652	2678
4		<i>“ Conditions ” not necessarily associated with General or Local Diseases—</i>								
		Premature birth.....	126	.....	.....	.....	.....	.....	.....	.....
		Still-born.....	1764	.....	.....	.....	.....	.....	.....	.....
		Infantile debility.....	417	.....	.....	.....	.....	.....	.....	.....
		“ marasmus.....	773	.....	.....	.....	.....	.....	.....	.....
		Adult debility.....	192	.....	123	484	607	.....	.....	.....
		“ marasmus.....	61	.....	.....	.....	.....	.....	.....	.....
		Old age.....	363	.....	24	19	43	.....	.....	.....
		Totals.....	.....	3696	.....	.....	.....	147	503	650
5		Poisons.....	19	.....	1	2	3	.....	.....	.....
		Mercury—Salivation.....	1	.....	1	64	65	.....	.....	.....
		Lead colic and Palsy.....	13	.....	5	167	172	.....	.....	.....
		Opium.....	.....	.....	1	10	10	.....	.....	.....
		Chloroform.....	.....	.....	2	.....	2	.....	.....	.....
				33				10	243	253
		Alcoholismus.....	.....	.....	.....	.....	.....	.....	.....	.....
		Del. tremens, Intempr'ce.....	610	.....	348	1543	1891	.....	.....	.....
		Totals.....	.....	643	.....	.....	.....	358	1786	2144

*Sixteen cases in 1858.

TABLE NO. 6—CONTINUED.

Class.	Order.	DISEASES.	City for 5 years.		Charity Hospital for 5 Years.					
			Deaths.	Deaths by Classes.	Deaths.	Dischar ges.	Total Cases.	Deaths.	Dischar ges.	Total.
6	1	<i>General Injuries---</i>								
		Casualties.....	280	.....	1	.....	1	.....	.....	.....
		Drowned.....	402	.....	.....	.....	.....	.....	.....	.....
		Asphyxia.....	43	.....	.....	.....	.....	.....	.....	.....
		Lightning.....	2	.....	.....	.....	.....	.....	.....	.....
		Burns and Scalds.....	168	.....	40	236	276	.....	.....	.....
		Exposures, Privation, etc	15	.....	1	.....	1	.....	.....	.....
				910				42	236	278
		Executed.....	5	.....	.....	.....	.....	.....	.....	.....
		Suicide.....	105	.....	.....	.....	.....	.....	.....	.....
		Murdered.....	88	.....	.....	.....	.....	.....	.....	.....
		Infanticide.....	17	215	.....	.....	.....	.....	.....	.....
		Totals.....	.....	1125	.....	.....	.....	42	236	280
6	2	<i>Local Injuries---</i>								
		Wounds.....	164	.....	.....	.....	.....	.....	.....	.....
		Continued, Lac, Incd., Punc'd, Penet'g.....	.....	.....	71	3032	3103	.....	.....	.....
		Gunshot.....	.....	.....	25	160	185	.....	.....	.....
		Poisoned.....	.....	.....	2	17	19	.....	.....	.....
		Dog, Centipedes, Snake..	.....	.....	.....	21	21	.....	.....	.....
		Fract., Concus, Comp., etc., Skull and Spine;	146	.....	78	60	138	.....	.....	.....
		Disl. and Frac. Sternum, Clav., Scap., Facial	.....	.....	.....	.....	.....	.....	.....	.....
		Bones, Ribs.....	3	.....	8	141	149	.....	.....	.....
		Disl. & Frac. Upper Ext.	.....	.....	1	266	267	.....	.....	.....
		" " Lower and Pelvis.....	14	.....	11	300	311	.....	.....	.....
		Other local Injuries..	1	.....	5	3	8	.....	.....	.....
		Totals.....	.....	328	.....	.....	.....	201	4000	4201
7		<i>Surgical Operations---</i>								
		Amputations, etc.....	4	.....	.....	61	61	.....	.....	.....
		" Thigh.....	.....	.....	2	4	6	.....	.....	.....
		" Leg.....	.....	.....	4	20	24	.....	.....	.....
		Totals.....	.....	4	.....	.....	.....	6	85	91
8		<i>Parasites---</i>								
		Worms.....	30	.....	1	4	5	.....	.....	.....
		Asc. Lumb. ....	.....	.....	.....	8	8	.....	.....	.....
		Tape*.....	.....	.....	.....	1	1	.....	.....	.....
		Totals†.....	.....	30	.....	.....	.....	1	13	14
9		<i>Congenit. Malformations</i>	3	.....	.....	.....	.....	.....	.....	.....
		Imperforate Anus.....	13	.....	.....	.....	.....	.....	.....	.....
		Totals.....	.....	16	.....	.....	.....	.....	.....	.....
10		<i>Diseases not Classifiable..</i>	33	.....	.....	9	9	.....	.....	.....
		Unknown, Uncertain, etc	933	.....	68	1707	1775	.....	.....	.....
		Totals of Class 10.....	.....	966	.....	.....	.....	68	1716	1784
		Grand Total of all Classes	...	37133	.....	.....	.....	6992	49300	56292

* Add 45 cases of Scabies.

† Total cases of Parasites in C. H. 59.

The following, Table No. 7, is a selection from Table No. 6 of some thirty-five diseases which caused over five-sixths of the total mortality. The number of such unsatisfactory specifications as "Teething," "Debility," "Marasmus," "Convulsions," etc. is very noticeable; and when the large number of deaths by diseases "unknown" are added to the above, it renders the whole table but a very distant approximation to the truth. Still farther, it is well known by the post-mortem examinations in the Demonstrator's Rooms of the Medical Department, University of La., that many errors occur in diagnosis, which is very markedly the case as to abscess of the liver. Out of less than 150 post-mortems in the past two years, there have been found nearly as many abscesses of the liver as appear in the reports of the total mortality in the city for those years. But notwithstanding all these objections, this table is not uninformative; and to aid the conclusions of students, two comparative columns have been added. These are subject to similar causes of error; and present at least the basis for a comparative conclusion. The comparatively large number of deaths by Consumption, Intemperance, and Casualties is well worthy of attention; and if this table be studied in connection with the monthly reports, it is impossible to avoid the conclusion that very many cases recorded "Typhoid" were probably "Malarial" Fever.

TABLE No. 7.

Causes of the death of 5, in less than 6 of the people of New Orleans who died during the five years 1856-60. Pop. about 801,825.

CHILDREN CHIEFLY.		No. of Deaths in England in 1863 to about 801,825 Pop.	No. of Deaths in Phila- delphia in 1861 to about 801,825 Pop.
1	N. B.—Stillborn and Premature Births..1890	.....	*890
2	Whooping Cough..... 217	440	130
3	Measles..... 236	443	100
4	Diphtheria..... 308	254	710
5	Croup..... 433	271	430
6	Scarlatina..... 497	†1190	1675
7	Cholera, Infantum..... 517	.....	870
8	Teething..... 897	160	42
9	Tris. Nascent..... 947	.....	.....
10	Infant Debility and Marasmus.....1190	.....	1290
11	“ Convulsions.....2031	.....	645
...
...	ADULTS AND CHILDREN.	.....	.....
12	Cancer..... 232	292	272
13	Debility and Marasmus..... 253	.....	620
14	Small-Pox..... 262	‡232	105
15	Tetanus..... 315	.....	36
16	Old Age..... 363	1090	285
17	Diseases of Liver..... 437	300	185
18	Dropsy and Ascites..... 551	318	412
19	Diseases of Heart..... 550	761	432
20	Intemperance..... 610	32	||90
21	Casualties.....1453	.....	.....
22	Viz: Premeditated..... 215.....	‡612	‡620
23	Accidental..... 910.....	.....	.....
...	Local Injuries, accidental 328.....	.....	.....
24	Diseases of Brain.....1745	150	472
25	Viz. Inflammation..... 514.....	380	230
26	Apoplexy..... 584.....	.....	490
...	Congestion (?)..... 647.....	.....	.....
27	Diseases of Intestinal Canal.....4220	74	254
28	Viz: Dysentery.....1187.....	223	470
29	Inf. Stomach and Bowels...1293.....	614	316
...	Diarrhœa, Ch. Morbus, etc.1740.....	.....	.....
30	Diseases of Lungs.....5575	1250	198
31	Viz: Bronchitis and Catarrh.... 505.....	944	1160
32	Pneumonia and Congestion.1343.....	2000	**2570
...	Consumption.....3727.....	.....	.....
33	Fevers.....7359	.....	420
34	Viz: Typhoid..... 802.....	13	57
35	Malarial.....1315.....	.....	.....
...	Yellow.....5242.....	.....	.....
...
...	Total.....31288	.....	.....
...	Various other Diseases..... 4879	.....	.....
...	Unknown..... 966	.....	.....
...
...	Grand Total.....37133	.....	.....

* 1490 St. Louis, 1867, for 801,825 population.

† More than double that of either 1860, 1861 or 1862.

‡ More than double that of either 1860, 1861 or 1862.

|| 164 in 1860.

§ 460 in St. Louis, 1867, for 801,825 population.

** 1620 in St. Louis, 1867 for 801,825 population.

The following Table No. 8 also selected from Table No. 6 gives an approximative idea of the chief causes of sickness, irrespective of the causes of death. It specifies the diseases for which about ten in every eleven patients were treated in the Charity Hospital. To aid the proper interpretation of this Table, these facts should be remembered; patients who enter the hospital are as a rule much more sick and die in larger number, than an equal number of patients in the city; and about one in every eight hospital patients died, but it is probable that in the city as a whole, there are at least thirty people sick for every one who dies.

In healthy countries it has been calculated that there is about one death in every twenty cases of sickness. An examination of this subject in New York, the most unhealthy city probably in the North, showed in 1864 that of 2,014 policemen, there were during the year, twenty-eight cases of sickness to every death, and that the average duration of the sickness of those who did not die was sixteen and a half days. Many similar facts might be cited. This general conclusion from such researches is important, viz., that the higher the death rate of a place, the greater is the degree to which the standard of health is lowered, and the larger is the number of cases of sickness to the number of deaths. Hence the above estimate of thirty cases of sickness to every death is very certainly not an over-statement of the case for New Orleans. Political economists reflect on this!

No intelligent physician can examine the causes of the 50,000 cases of sickness in Table No. 8 without regarding with sadness the very large proportion which he knows could have certainly been prevented by proper hygienic remedies. When it is reflected that in the whole city there must be a relatively much larger number of cases of malarial fever than in the Charity Hospital; and it is then observed that about five in every nineteen patients even in this hospital were sick from malarial causes;—what other or stronger facts can be needed to show the necessity for drainage? Another important fact in this connection,—the five out of the nineteen were diagnosed unquestionably and directly as malaria, whilst every physician in New Orleans knows well how very many cases of sickness are called by other names, which he feels satisfied are due indirectly at least to malarial poison.

TABLE No. 8.

Chief Causes of Sickness in New Orleans, and for which nearly 10 in 11 of those who entered the Charity Hospital during 5 Years, 1856-60, were treated—

<i>Fevers,</i>	18890
<i>viz:</i> 1.—Malarial.....	14702
2.—Yellow.....	3155
3.—Typhoid	1033
<i>Diseases of Digestive Organs:</i>	7418
<i>viz:</i> 4.—Diarrhœa and Cholera Morbus.....	4277
5.—Dysentery.....	1508
6.—Inflammation Stomach and Bowels.....	519
7.—Dyspepsia, Gastrodyn, &c.....	465
8.—Biliary Derangement.....	256
9.—Hepatic Disease.....	393
<i>Diseases of Lungs,</i>	1440
<i>viz:</i> 10.—Tuberculosis.....	1977
11.—Bronchitis and Catarrh.....	1329
12.—Pneumonia and Congestion.....	823
13.—Pleurisy, &c	311
14.—Local Injuries.....	4201
15.—Veneral Diseases.....	3275
16.—Ulcers, Abscesses, &c.....	2328
17.—Cutaneous Diseases.....	350
18.—Rheumatism.....	2678
19.—Intemperance.....	2384
<i>Nervous Diseases,</i>	1370
<i>viz:</i> 20.—Brain and Spinal Cord.....	877
21.—Neuralgia.....	493
22.—Eye Diseases.....	1233
23.—Pregnancy, Parturition and Abortion.....	812
24.—Debility and Marasmus.....	607
25.—Dropsy and Ascites.....	426
26.—Disease of Heart and Circulation.....	358
Total of the above.....	50033 *

* The total number of cases by all diseases in the Charity Hospital during the 5 years 1856-60, was 56,292.

The following Table No. 9 is regarded as one of the most instructive in the series, and by none does it deserve greater consideration, than by those who argue so loosely about a "floating population," which they neither number nor define. It will be observed, that the year has been divided into two equal parts, for the purpose of contrasting,—the more healthy with the less healthy season, and that half of the year when all its resident and most of its "floating" population is in the city, with the half during which very many residents are absent, and the visitors are comparatively few in number. Notwithstanding this design, it appears that May, placed in the sickly half year was a more healthy month, than November which I have made to begin the healthy half year. The healthiest month, (February) would give a death rate for the whole year of 30.8 per 1000; the most sickly month with yellow fever (September) would give a death rate for the year of 78.6; and the most sickly month without yellow fever (July) would give for the same time 47.5 per 1000. It will be remembered that the death rate for the whole time was 46.3.

The diseases selected for monthly report are those which were most fatal, and supposed to be most influenced by the seasons. It will be observed that notwithstanding the many strangers said to come here to die of consumption there were only 179 (about 5 per cent) more of such deaths in that half of the year when they are very surely in New Orleans, if here at all. No city in the Northern Hemisphere is known to me, where comparatively more deaths by consumption do not occur in this same half year, than in the other half.

It is worthy of notice, that during the epidemic of 1858 there were, compared to the other four years, many more deaths by the indefinitely diagnosed "infantile diseases." This evidence strongly favors the opinion of those who contend that the native as well as the alien born must undergo acclimation, and pay tribute, though to less extent, to yellow fever.

TABLE NO. 10.

Mortality by Sexes, 5 years, 1856-60.	Pop. by Sexes 1 year, 1860, U. S. C.
Deaths of Males, (5 years).....22,675	Population of Males, (1 year).....85,106
“ “ Females, (5 “).....13,960	“ “ Females.....83,569
“ “ Sex Unknown..... 498	
Total .....37,133	168,675

The above figures would indicate a death rate of males of about 57., and of females of about 36. per 1000 for the 46.3 of the whole population. Excluding the epidemic yellow fever year 1853, the female death rate for the other four years was over 31 per 1000. It is believed that in all the southern yellow fever cities the female is considerably less than the male death rate.

The following table No. 11 is the least satisfactory of all—for two reasons. First, because the deaths by nativities could not be obtained for 1856, and secondly, because for the four other years, so large a proportion of deaths are reported of “nativity unknown.”

TABLE NO. 11.

Mortality by Nativities for 4 years, 1857-60.	Population by Nativities, 1 year 1860.
Deaths of natives of U. S. (4 yrs.) 16,166	Natives of U. S.....104,054
“ “ foreign born “ 10,827	Foreign born..... 64,621
“ “ nativity unkn'wn “ 4,497	
Total.....31,490	Total.....168,675

N. B.—The 104,054 natives of U. S. were 72,527 born in La., plus 13,385 slaves, plus 18,142 born in other States of U. S. The following results from the reports as to deaths by nativities are worthy of attention. They indicate that in epidemic years the death rate of the “foreign born” is much higher than that of the native born; and a very little higher in non-epidemic years.

- 1st. The death rate of the total population for the 4 yrs. was 48.5
- “ “ “ “ “ “ natives of U. S.” “ “ “ “ 46.8
- “ “ “ “ “ “ foreign born “ “ “ “ 51.1

- 2d. The death rate of the total population for the epidemic year 1858 was. 73.1
- “ “ “ “ the native “ “ “ “ 63.3
- “ “ “ “ foreign “ “ “ “ 89.1

3d. The report for the non-epidemic year 1859 contains only 271 deaths out of 6847, whose nativity was unknown; and therefore gives a more reliable conclusion than the other years. The results are as follows:

Death rate of the total population for 1859 was.....	41.6
“ “ “ “ native “ “ “ “	41.5
“ “ “ “ foreign “ “ “ “	41.7

The subject of mortality by races possesses great interest for all nations, which, like ours, are so diversely inhabited. Since political events have altered our relations with the negro race, the following statistics have not regarded the distinctions made in the census between free colored and slaves, but have added both together, and report all either as black, colored, or negroes, as likely to prove of most service for comparison in the future. Since negro means simply black man, can the ignorance of this race, and the interested subserviency of many white men be better illustrated, than by their resentment at the application of this word to the “colored” race? Will some scientific radical inform the world whether all men, whatever the race, are not “colored”? and pardon me, until he can substitute a more definitive word, for preferring the distinctive designation of “negro,” recognized by usage, common sense, all ethnologists and physiologists, to the very indefinite term “colored.” Must a southern man, to show that he is “amicus humani generis,” disregard altogether all Lexicographers?

TABLE NO. 12.

Mortality by Races for 5 years, 1856-60.

N. B.—The first two columns present the results calculated from the other four.

YEARS.	Death Rate of Whites,	Death Rate of Blacks.	No. of White Population	No. of Black Population	No. of White Deaths	No. of Black Deaths
1856	37.1	38.1	126,199	26,126	4,693	*996
1857	34.3	43.1	130,780	25,400	4,485	1,096
1858	78.3	44.9	135,340	24,900	10,603	1,118
1859	41.2	43.8	140,000	24,400	5,778	1,069
1860	42.3	50.5	144,601	24,074	6,114	*1,227
Totals and aver'ges for 5 years	..... ..... 46.8	..... ..... 44.1	..... ..... 676,920	..... ..... 124,900	..... ..... 31,673	..... ..... 5,506

* Report imperfect.

By the above table it will be seen that though the negro death rate is for the five years, less than the white death rate, that this is altogether due to the epidemic year 1858; for this being excluded, the negro death rate was larger in each of the four other years. This result corresponds to that of other cities in the United States, as is shown by the following table presented for comparison, and obtained from United States census 1860.

TABLE NO. 13.
For comparison of Mortality by Races.

PLACE.	Years.	No. of years.	Total Death Rate.	White Death Rate.	Negro Death Rate.
Charleston	1822-48	27 years	25.8	24.8	26.4
Charleston	1822-60	39 years	26.6	26.1	26.9
Baltimore.....	1818-63	38 years	25.9	24.9	31.0
New York.....	1821-63	39 years	31.7	31.3	40.9
Washington	1849-60	12 years	20.3	19.8	22.1

MORTALITY BY AGES.

The remainder of this article is devoted exclusively to the most instructive and difficult branch of vital statistics, the mortality by ages. To do full justice to this subject requires more mathematical skill and patience, and larger knowledge of the subject than I possess. The original figures are given from which my tables have been calculated, and from which other instructive tables may be constructed. The writer does not claim perfect accuracy for his calculations, and hopes to renew and amend them in the future.

The last tables in regard to still-births and old age, require no explanation; but the reader will be facilitated by a few words in reference to the series of tables which are first presented; Nos. 14-17.

Table No. 14 gives the deaths by ages for five years, and the population by ages for one year. These figures are the basis for all the other calculations. It must be remembered that the population for one year, must be multiplied by nearly five, or the deaths be divided by five to cause them to correspond for annual calculations.

Tabel No. 15 gives extremely important information, viz., the number of the population at each age to every 1000 of the whole population. To this is added for instructive comparison, a column which shows how many died at each age in the 46.3, who died of all ages in every 1000 of the total population. This same information is conveyed in different form, with some columns for comparison in Table No. 16. Table No. 17 presents the ratio of deaths by age to the population by ages, a much surer test of the health of a place, than the ratio of deaths by ages to the total deaths as given in table No. 16.

TABLE No. 14.

Mortality in New Orleans by Ages, 5 Years 1856-60,—and Population by ages, 1 Year, 1860.

	DEATHS 5 YRS., 1856-60.		POPULATION 1 YEAR, 1860, U. S. CENSUS.
Premature Births.....	126	.....	.....
Still-Born.....	1764	.....	.....
Under 1 Year.....	6428	.....	.....
Total under 1 year.....	.....	8318	3637
1 year and under 2 yrs.	2740	.....	.....
2 years " 5 "	2918	.....	.....
Total 1 yr. " 5 "	.....	5658	18874
5 yrs. and under 10 yrs.	.....	1383	19038
10 " " 15 "	.....	760	15365
15 " " 20 "	.....	1217	15595
20 " " 30 "	.....	6541	36100
30 " " 40 "	.....	5536	30963
40 " " 50 "	.....	3562	18185
50 " " 60 "	.....	1746	6770
60 " " 70 "	.....	934	2890
70 " " 80 "	.....	492	810
80 " " 90 "	.....	261	255
90 " " 100 "	.....	96	85
100 " and over.....	.....	27	28
Unknown.....	.....	602	80
Grand Totals.....	.....	37,133	168,675

In 1858 there were 3913 deaths under 10 years of age, against an average of 2860 per annum for the other four years. This excess of deaths is chiefly remarkable in those 2 to 5 years old.

TABLE No. 15,

Showing in every 1000 of the whole Population the number of persons at the ages specified ; and also, by comparison, the characteristics of the Population of New Orleans by ages.

	No. OF PERSONS IN EVERY 1000 POPULATION.				No. of Deaths in N. O. 1856-60 at each age in every 1000 of the whole pop
	NEW ORLEANS, 1860.	Miss., La., Ark., Texas, 1860.	WHOLE OF U. S. 1860	BALTI-MORE 1860.	
Under 1 Year.....	21.50	29.6	29.7	30.5	*10.4
1 year and under 5 yrs	112.00	134.2	124.3	112 5	6.6
5 years " 10 "	113.00	144.6	132.7	121.0	1.6
10 " " 15 "	91.00	127.9	118.1	106.0	.9
15 " " 20 "	92.50	109.9	106.9	101.0	1.4
20 " " 30 "	214.00	189.9	182.1	191.0	9.0
30 " " 40 "	183.33	123.0	127.9	150.0	7.0
40 " " 50 "	108.00	76.4	83.2	97.0	5.0
50 " " 60 "	40.00	38.2	51.3	53.1	2.2
60 " " 70 "	17.00	17.0	28.2	25.5	1.1
70 " " 80 "	5.00	5.3	11 1	9.5	.6
80 " " 90 "	1.50	1.3	2 9	2.5	.3
90 " " 100 "	.50	.3	.4	.3	.1
100 " and over.....	.17	.1	.....	.1	.03
Unknown.....	.50	.....	.....	.....	.07
	1000.	1000.	1000.	1000.	46.3

* Including the Still Births, which were 2.3 of the 10.4 deaths under 1 year and also 2.3 of the 46.3 deaths of the population of all ages, per 1000 pop.

Table No. 15 shows that New Orleans has comparatively a very large population from 20-50 years old, (though not as large comparatively as that of Paris), and a smaller population than usual under 1 year, as also over 50 years, but more especially over 70 years of age. Any great excess of population from 20-50 years of age, or at any period of life has necessarily the effect of diminishing the pro-rata population of all other ages. In simpler language, if any one age has, say 100 more than usual in 1000, this leaves, of course, 100 less to be distributed in the other ages in order to make up the 1000 of all ages.

TABLE NO. 16.

Showing how many died at the different ages specified, in every 1000 deaths, (of the total 37,133 deaths); with comparative Tables

	New Orleans. Average of 5 yrs. 1856-60, in- cluding Still- Births and ex- clud. Unknown	Philadelphia. Average of 7 years 1862-68- Deaths 34,641.	New Orleans. Excluding Still-Births and Unknown.	"London Pru- dent. Assur'ce Co." Average of 3 yrs. 1864-66
Under 1 year	228.00	270.00		
1 yr. and under 2 yrs.	75.00	85.00		
2 yrs. " " 5 "	80.00	86.00		
5 " " " 10 "	38.00	43.00		
[0 " " " 10 "]	.....	.....	389.	432.6
10 " " " 15 "	21.00	17.00		
15 " " " 20 "	33.00	30.00		
[10 " " " 20 "]	.....	.....	57.	91.3
20 " " " 30 "	179.00	109.50	189.	66.1
30 " " " 40 "	151.00	93.50	160.	51.2
40 " " " 50 "	98.00	75.00	103.	72.4
50 " " " 60 "	48.00	60.50	50.	114.5
60 " " " 70 "	25.50	57.50	27.	105.7
70 " " " 80 "	13.30	45.00	14.	51.5
[80 and all over ]	.....	.....	11.	14.7
80 yrs and under 90 "	7.00	22.50		
90 " " " 100 "	2.50	4.80		
100 and over.....	.70	.70		
	1000.00	1000.00	1000.	1000 00

N. B.—The first two columns are comparable with each other, as also the last two. The differences between the first and third columns are due entirely to the fact, that in the first, the Still-births are included, and in the third excluded.

A superficial observation of the ratio of deaths under 1 year of age is calculated to lead to the very erroneous conclusion, that the death rate in New Orleans, 228. was necessarily less than the 270. in the next column for comparison. The reader has been warned in the introductory of this article, against this often committed error. Take the above as an example to illustrate this, and the explanation is as follows: The annual deaths of all ages in New Orleans, in ratio to the population, were more than double such deaths in the city of the 2d column. Say 2000 in the former to 1000 in the latter, therefore of course, the 228. of New Orleans would be double, making 456. to every 270. of such deaths in that city. This explanation applies to all the other ages, and becomes a terrible truth when applied to those aged from 20 to 50 years, as well as to those under 1 year. One modifying fact must not be forgotten in seeking the truth, viz., the relative number of the population at each age, given in Table No. 15. It is seen there, that New

Orleans has an excess of population from 20 to 50 years of age, therefore there should be an excess, (but remember, only a *corresponding* excess) of deaths at that period of life. Keeping in view these facts, the reader will be prepared to appreciate the information contained in table No. 17, which follows. It is important to add, that unless the three Tables, Nos. 15, 16, and 17 be studied as a whole, each imperfect by itself, but aiding the interpretation of the others, false conclusions will be unavoidable. Any reports of mortality by ages destitute of these three sets of facts are necessarily imperfect and most unsatisfactory.

TABLE NO. 17.

Showing the annual deaths per 1000 to every 1000 living of the ages specified, i. e., if 46.3 persons died in every 1000 of the whole population of all ages, how many died in every 1000 of those aged, say 20 to 30 years old? Answer,—37. Vide infra.

AGES SPECIFIED.	NEW ORLEANS.	5 cities consoli'd viz., N. Y., Philadelphia, Baltimore, Boston, Provid'nce U. S. C.	" London Prudential Assurance Co." 3 years, viz., 1864-66.
All under 5 yrs. still-births included.	126.0	.....	.....
" " " " excluded.	110.0	.....	.....
" " " " "	.....	86.5	.....
5 years old, and under 10 years.....	14.7	11.0	.....
0 and under 10 years.....	[†66.]	.....	+35.37
10 and under 15 years.....	10.0	4.5	.....
15 and under 20 years.....	15.8	6.9	.....
10 and under 20 years.....	[13.0]	.....	5.84
20 and under 30 years.....	37.0	10.6	11.99
30 and under 40 years.....	36.4	14.0	12.33
40 and under 50 years.....	40.0	18.1	18.28
50 and under 60 years.....	52.5	25.1	37.98
60 and under 70 years.....	66.0	44.1	77.97
70 and under 80 years.....	124.0	90.8	196.63
80 and all over 80 years.....	[213.0]	.....	366.45
80 and under 90 years.....	209.0	161.8	.....
90 and under 100 years.....	236.0	271.6	.....
N. B.—No. of Deaths per 1000 population of all ages.....	46.3	24.10	21.67

* Not stated whether Still-births are included or excluded.

† Still-births Excluded.

MORTALITY UNDER ONE YEAR OF AGE.

Table No. 17 omits to give the number of infants who die before they reach one year of age. All hygienists regard this as one of the most reliable of all tests of the sanitary condition of a

place. The delicate, sensitive physique of the new-born child is destroyed by morbid causes, which an older age resists with greater success, whilst every age feels the evil influence. None will dispute the hygienic laws that, "where children most die there the survivors are apt to be most sickly," and that "a local mortality of children must almost necessarily denote a high local prevalence of those causes, which determine a degenerate race."

The reader is referred to the study of Still-births, page 58, for the reasons which justify the conclusion that the annual births in New Orleans, 1856-60 did not exceed 4600. This is the basis for the following average estimates which are amenable to the objection, that the number of births is estimated, and not officially reported. If the births were more, then the results would be more favorable, and *vice versa*. Of the 4600 born, 378 were born dead, leaving 4222 born alive. Of these there died under 1 year of age 1286; which equals 304 deaths in every 1000, or 1 death in less than every 3.3 born alive. Now compare the figures in

TABLE NO. 18.

Which shows how many Infants die before the expiration of the first year of Life in every 1000 infants born alive.

PLACE.	Years.	Length of Time.	No. of Deaths under 1 yr. of age in every 1000 infants born alive.	Ratio of 1 death under 1 yr to every — born alive
New Orleans.....	1856-60	5 years	304.0 =	1 to about every 3.3
New York.....	1859-61	3 years	257.5 =	1 " " 4.0
Baltimore	1850-60	11 years	207.9 =	1 " " 4.8
Philadelphia	1859-61	3 years	188.8 =	1 " " 5.3
England	1860	unknown	170.0 =	1 " " 5.9
France	1860	"	200.0 =	1 " " 5.0

The deaths in France are reported in the above table as 1 in 5; however Bouchut in his "Hygiène de la première enfance" 1866 says, "La mortalité des enfants en général, prise dans les différentes conditions sociales, est aujourd'hui, en France, d'un sixième pour la première année, tandis qu'elle était autrefois d'un quart." The very bad condition of that "autrefois" is not left in doubt.

Whatever be the truth at present as to France, this much is certain, that the death rate of healthy places *ought* not to exceed 1 in 6; that it certainly does not exceed 1 in 5; and that I lack the ingenuity requisite to construct a reasonable estimate which can

at the best make out a better proportion for New Orleans (1856-60) than 1 in 4, whilst I believe that 1 in 3.3 is more favorable than the actual truth.

STILL-BIRTHS.

When not otherwise stated, the above term has been made, by the proper additions, to include the premature births. New Orleans Boards of Health have from time immemorial claimed that New Orleans was not as sickly as its reports and the underestimates of the population by the United States census made it; and also, as a part of the argument for the benefit of the living, that the still-births were excessive, and therefore should be deducted from the gross total of annual deaths. This excess has been invariably ascribed to the ignorant, conscienceless midwives who are permitted by the laws to ply their avocation. No one can exceed me in denouncing both such midwives and such laws, yet it is well to examine seriously whether in truth there be any such comparatively great excess as has been claimed. To the facts.

TABLE No. 19.

Showing Still-Births in New Orleans for 5 years, 1856-60, and the Still-Births with other interesting facts in the N. O. Charity Hospital for the same 5 years, and also for 13 and five-sixths years.

Place.	Years.	Length of Time.	Total No. of Still-Births.	Total No. of Births.	Total No. of Male Births.	Total No. of Female Births.	No. of cases of Twins.
N. Orleans	1856-60	5 yrs	1890	unkn'wn	unkn'wn	unkn'wn	unknown
N. O. Ch. H.	1856-60	5 yrs	60	570	330	240	5
" "	1852-68	*13 5-6 y	168	1547	798	749	18

* These 13 and five-sixth years include the 5 years 1856-60, but do not include the time from Nov. 1861 to Jan. 1864, nor the year 1865, as the reports for these specifications have not been procured.

To interpret the above figures instructively for comparison requires that some three facts should be obtained, viz: 1st. The ratio of still-births annually to the total population; 2d, (and most important) the ratio of annual still-births to the total annual births; 3d, (and least important) the ratio of annual still-births to the total annual deaths.

Now we have the total population, as also the total deaths; but to supply all the above facts, it is most necessary to know what was the No. of annual births. In the absence of all reports,

this can only be obtained by approximative estimation, which will be undertaken prior to furnishing information as to any of the three above facts.

Approximative estimate of the No. of annual births in New Orleans, during the 5 years 1856-60. The following four series of facts are presented, viz :

1st. U. S. census gives for 1860, population "under 1 year" 3637
Board of Health gives for 1860, deaths under 1 year :

viz., Still-births.....	334	} 1467
Other deaths under 1 year of age.....	1133	

N. O. Board of Health gives, "ages unknown," divided

pro-rata for those under 1 year of age... ..	117
--	-----

Total population and deaths under 1 year in N. O. in 1860 5221

Thus if the records be correct, the births in 1860 could not have been less than (3637 *plus* 334 =) 3971, nor more than 5221. How is the difference between these numbers (1133 *plus* 117 =) 1250 to be divided ; for it is evident, that, whilst many of these 1250 who died in 1860, had been born in 1860 ; it is also evident that many of these who died in 1860 "under 1 year of age" had been born in 1859. My own calculation from these figures is that 4700 births in 1860 must be a very close approximation to the truth.

2d. Statistics for many years and of many healthy countries give as an approximative estimate of the number of births in a total population, 1 birth to every 25 to 35 inhabitants. Now 4700 births in 1860 is to 168,675 population in 1860 as 1 is to 35.8. (N. B. As the other four years of 1856—1860 had a less population, the births for the other years were less than 4700).

3d. English statistics (the most healthy, and considered the most reliable) prove that the annual births yielded by every 1000 of the female population from 15 to 55 years of age is from 100 to 120. The 100 for sickly, and the 120 for healthy sections of the country. The United States census gives to New Orleans in 1860 a female population aged from 15 to 55 years, about 49,300, which would yield in healthy England from 4930 to 5916 babies annually.

4th. The records of all times and places establish beyond question, that the causes which determine a high death-rate tend likewise to determine a low birth-rate. The exceptions occasionally found to this law owe their existence to the fact that some cause of death is particularly active amongst the unproductive members of the community. As, for example, measles may increase the death rate to a very decidedly larger figure without sensibly affecting the birth-rate. But this is generally a temporary cause as affecting the death-rate and does not invalidate the rule—that the birth rate is in inverse ratio to the death-rate; the higher the latter, the lower the former.

These four series of facts satisfy me, that an estimate of 4600 births annually for each of the five years 1856-60 is an over rather than an under estimate. One thing is very certain, that the larger the number of births, the less excessive becomes the number of still-births. Now those who have claimed an excess of still-births, have also claimed a larger population, and therefore more births. A study of the facts will force them out of one position, or the other. In the mean time, let us seek for these facts, regardless of the *opinions* of any body.

TABLE No. 20,

Showing the Annual Ratio of Still-births to Population, Births and Deaths; also the ratio of Annual Births to Population.

PLACE.	TIME & DATE.	Ratio of Stillbirths to 1000 Population.	Ratio of Stillbirths to every 1000 Births.	Ratio of Stillbirths to every 1000 Deaths.	Ratio of Births to Females every 1000 from 15 to 55 yrs of age.	REMARKS.
New Orleans.....	5 yrs., viz—1856-60.....	2.3	*80.0	51.0	*96.	*Estimated by S. E. C. on basis of 4600 [annual births.
Charity Hospital, N. O.....	13 5-6 yrs. viz—1852-68.....	.....	108.6	.....	.....	†Dr. Collins.
Dublin lying in Hospital.....	7 years.....	.....	†67.0	.....	.....	1861-66 give similar figures.
Paris.....	1 year, viz—1865.....	2 6	80.0	85.6	32.5	.....
“ Variations in different districts.....	1 year, viz—1865.....	1.7-3.5	.....	.....	.....	.....
Boston.....	“ “ 1861.....	†2.0	†64.5	.....	.....	.....
St. Louis.....	“ “ 1868.....	2.3	.....	103.0	.....	.....
Philadelphia.....	3 years, viz—1860-62.....	1.2	40.0	50.0	.....	.....
Baltimore.....	1 year, viz—1868.....	1.1	.....	58.0	.....	.....
Cincinnati.....	“ “ “.....	1.3	.....	92.0	.....	.....
England and Wales.....	10 years, viz—1851-60.....	.....	.....	.....	||34.0	†Exclusive of Premature Births. Other [years similar.
United States.....	1850.....	.....	.....	.....	||20.0	29. and 100. the lowest.
France, Prussia, Austria and Russia.....	Several yrs., about 1840.....	.....	.....	.....	||27.5-35.0	§Estimates of Dr. Wynne and Prof. [Tucker.
Vienna.....	1863-65.....	.....	.....	42.5	.....	.....
New York.....	1862.....	.....	.....	66.6	.....	.....
“.....	1868.....	2.7	76.0	88.2	.....	.....

To the above table it may be added, that statistics have not yet satisfactorily established that fact which is the best test, and of most importance, viz., the normal ratio of still-births annually to the total number of annual births. A recent New York report gives on this subject the most complete statistics in my possession which regards as a fair normal standard of healthy countries, about 56 still-births to every 1000 births.

It will be seen by the above table, that New Orleans much exceeds this healthy standard, as it rises to 80 per 1000, unless I have much under-estimated the annual births. Still the above table shows conclusively that in respect to this as all other tests, New Orleans has no such *comparative* excess, for places are to be found where the still-birth ratios in every particular are both higher and lower. The striking difference in favor of the city when compared with the Charity Hospital is worthy of special notice by the denouncers, on the still-birth argument, of the remorseless midwives. In any case, it is difficult to believe that midwives, however incompetent, aiding in the vast majority of cases the simple and natural process of parturition, could by unintentional ignorance kill enough babies out of much less than 4600 (of whom in fact only an average of 378 were still-born) to affect sensibly a death rate founded on over 7000 annual deaths. Deduct all the still-birth, and the 46.3 death rate is reduced only to 44. per 1000. One fact positively proved, in comparing the still-births in New Orleans, to those in the Charity Hospital, in Paris, New York, etc., is that either the still-births in New Orleans were not excessive, or that the population was less numerous or less productive than given by the United States Censns.

The study of table No. 20, with other such facts in my possession have prompted the question, whether a high extra uterine death rate indicates a high intra uterine death rate? I know of no researches on this subject, but feel persuaded that an affirmative answer would accord with physiological laws.

OLD AGE, OR LONGEVITY.

It has been claimed time and again that the census of 1850 proved conclusively that Louisiana and Texas had more centenarians than any other sections of the United States. So

often has this been asserted that many physicians of New Orleans have, by the mere repetition of this fable, come to believe it. I regret to say, that in my younger days, when I relied much more on opinions and much less on facts for my conclusions, than experience now permits me, I published an article repeating this assertion, and blindly argued as others, that therefore the healthfulness of the climate was established. Now the facts are, that in the first place it is by no means proved, nor is it accepted that longevity necessarily indicates a low death rate for a population; and in the second place the broad assertion is absolutely false as to the white population of these States. The truth is, that the excess claimed is found altogether in the negroes. Now when the subject of longevity is more fully studied, the most marked differences are found as to the three races, Caucasians, Africans, and Indians; and these differences are diminished when in addition to the centenarians, all over 90 years old are also taken. It is evident that a climate which permits an excess of the former, ought *a fortiori* to have an excess of the latter. The following table of 14 states, etc., selected at random, will, I think, settle this question conclusively and finally. As it has been much discussed, I have taken the trouble to add to the first six columns which give the approximative results, the last nine columns, (copied from U. S. census of 1850, and of 1860) from which the results were obtained by calculation.

TABLE No. 21, of Longevity, in 14 States, etc., of United States. Census of 1850 and 1860.

PLACE.	Year.	Total in those 90 yrs & over					WHITES.			NEGROES.			INDIANS.				
		No. of Whites 90 years* and over in every 1,000	No. of Negroes 90 years and over in every 10,000	No. of Indians 90 yrs and over in every 10,000	No. of Whites 100 years & over in every 10,000	No. of Negroes 100 years & over in every 10,000	No. of Indians 10 years and over in every 10,000	Total No. of White Population.	Total No. of Whites 90 years and over.	Total No. of Whites 100 years and over.	Total Number of Negro (Slave, Free, Col'd, etc) Population.	Total No. of Negroes 90 yrs and over.	Total No. of Negroes 100 years and over.	Total Number of Indian population.	Total No. of Indians 90 years and over.	Total No. of Indians 100 years and over.	
Orleans Parish.....	1850	2.4	30.3	.....	.....	.7	11.0	.....	91,431	22	7	28,029	85	31	.....	.....	.....
“.....	1860	3.7	24.0	.....	.....	.6	8.6	.....	149,053	56	9	25,428	61	22	.....	.....	.....
Louisiana.....	1850	2.7	13.3	.....	.....	.8	5.9	.....	255,491	70	21	262,271	331	155	.....	.....	.....
“.....	1860	3.5	12.6	.....	.....	.6	4.8	.....	357,456	126	23	350,546	443	169	.....	.....	.....
Texas.....	1850	2.8	7.3	.....	.....	1.5	2.7	.....	154,034	45	23	58,558	43	16	.....	.....	.....
“.....	1860	1.3	7.0	.....	.....	.8	2.9	.....	420,891	57	12	183,324	130	54	.....	.....	.....
Mississippi.....	1850	2.8	9.4	.....	.....	.6	3.9	.....	295,718	85	18	310,808	293	122	.....	.....	.....
“.....	1860	2.5	9.0	.....	.....	.5	3.8	.....	349,393	89	18	418,163	375	169	.....	.....	.....
Florida.....	1850	3.1	20.6	.....	.....	.4	8.4	.....	47,203	15	2	40,242	83	34	.....	.....	.....
“.....	1860	1.4	15.4	.....	.....	.1	4.8	.....	77,747	11	1	62,677	97	30	.....	.....	.....
South Carolina.....	1850	8.7	14.0	.....	.....	1.0	4.5	.....	274,563	210	29	393,944	552	177	.....	.....	.....
“.....	1860	6.5	14.9	.....	.....	.8	3.7	.....	291,300	189	25	412,320	615	155	.....	.....	.....
Dist. Columbia.....	1850	3.4	17.4	.....	.....	.0	5.8	.....	37,941	13	0	13,746	24	7	.....	.....	.....
“.....	1860	2.6	23.0	.....	.....	1	5.6	.....	60,764	16	1	14,316	32	8	.....	.....	.....
Maryland.....	1850	4.6	23.2	.....	.....	.4	7.0	.....	417,943	194	17	165,091	384	114	.....	.....	.....
“.....	1860	3.4	20.5	.....	.....	.3	6.0	.....	515,918	175	16	171,131	352	102	.....	.....	.....
New Jersey.....	1850	4.4	30.3	.....	.....	.2	6.2	.....	465,509	204	10	24,046	73	15	.....	.....	.....
“.....	1860	3.4	23.2	.....	.....	1	4.7	.....	646,699	226	9	25,335	59	12	.....	.....	.....
Maine.....	1850	5.8	22.0	.....	.....	.2	.0	.....	581,813	342	13	1,356	3	0	.....	.....	.....
“.....	1860	7.8	.0	.....	.....	.3	0	.....	626,947	488	20	1,327	0	0	.....	.....	.....
Vermont.....	1850	8.4	83.0	.....	.....	.2	27.8	.....	313,402	263	8	718	6	2	.....	.....	.....
“.....	1860	10.6	84.0	.....	.....	.4	2.0	.....	314,369	334	14	709	6	2	.....	.....	.....
Illinois.....	1850	1.4	22.0	.....	.....	1	5.5	.....	846,034	124	15	5,436	12	3	.....	.....	.....
“.....	1860	1.5	23.5	.....	.....	.2	9.1	.....	1,704,291	266	32	7,660	18	7	.....	.....	.....
Michigan.....	1850	1.8	7.7	37.2	.....	.2	7.7	.....	395,071	74	7	2,583	2	2	.....	.....	.....
“.....	1860	1.9	10.3	.....	.....	1	1.4	9.7	736,142	146	10	6,800	7	1	6,172	23	6
New Mexico.....	1850	20.6	.0	.....	.....	6.5	.0	.....	61,525	127	40	22	0	0	.....	.....	.....
“.....	1860	17.3	.0	36.4	.....	2.9	.0	18.1	82,924	144	24	.....	.....	.....	10,452	38	19
California.....	1850	.8	.0	.....	.....	.0	.0	.....	91,635	8	0	.....	.....	.....	.....	.....	.....
“.....	1860	.8	.0	.....	.....	.2	.0	30.9	323,177	28	9	.....	.....	.....	17,798	129	55

A glance at the above Table, No. 21, will show the following facts, viz :

1. The white centennarians in Orleans Parish, and in Louisiana, are exceeded by those in South Carolina, and very much, by those in New Mexico.

2. The whites over 90 years in Orleans Parish, and in Louisiana, are exceeded by those in South Carolina, Maryland, New Jersey, Maine, Vermont and New Mexico.

3. The States having the most settled population, sending off many young emigrants, and retaining the old inhabitants, have the largest number of the aged.

4. The census of 1850 as well as of 1860 show that the centennarians, and all over 90 years old of the Indians, much exceed the same population of negroes, and these very much surpass the whites. This indication may be true, but none the less, I am fully convinced of the justice of conclusion No.

5. The more ignorant, and the less truthful a race, the larger the number of centennarians to be found in the population.

A credulous census taker or any body can get over half of the dried up old darkies in Louisiana, for an extra chew of tobacco, to answer to any age desired. If the cue had been given beforehand, the venerable centennarian would recall with gusto the landing of Columbus, or the burial of DeSoto. I learn from one having experience, that in this regard the Indians are worse than the negroes.

Madame du Pampadour said to that very shrewd charlatan, the Count de St. Germain, "According to Madame de Gergy, you must be more than a hundred years old."

"That is not impossible, said the Count laughing, but it is much more possible that the good lady is in her dotage."

ERRATA.

The following errors of serious consequence have been detected.

Page 12, 10th line from bottom, for " (25 per cent ", read (2.5 per cent.

" 24, under "Remarks," for "1032-5, read 1832-5.

" 38, 1st column, for "643," read 643.

" 38, 4th No.e, for "47," read 647.

" 39, 2d line, for "on page 36," read on page 38.

" 46, Two last columns of Table No. 7. All the numbers from "157, 472," to "13, 57," inclusive, belong to Specifications, and should have been printed, one line lower, *e. g.*, 150 and 472, belong to "Inflammation," and not to "Diseases of Brain"; "2000," and "2570," belong to "Consumption," and not to "Pneumonia and Congestion"; with the same correction for the others.

Page 48, "Diseases of Lungs"—for "1440" read 4440.

" ~~58~~ 8th line, for "page 58," read page 60.

" 56, caption of 3d column, erase "Deaths 34,641".

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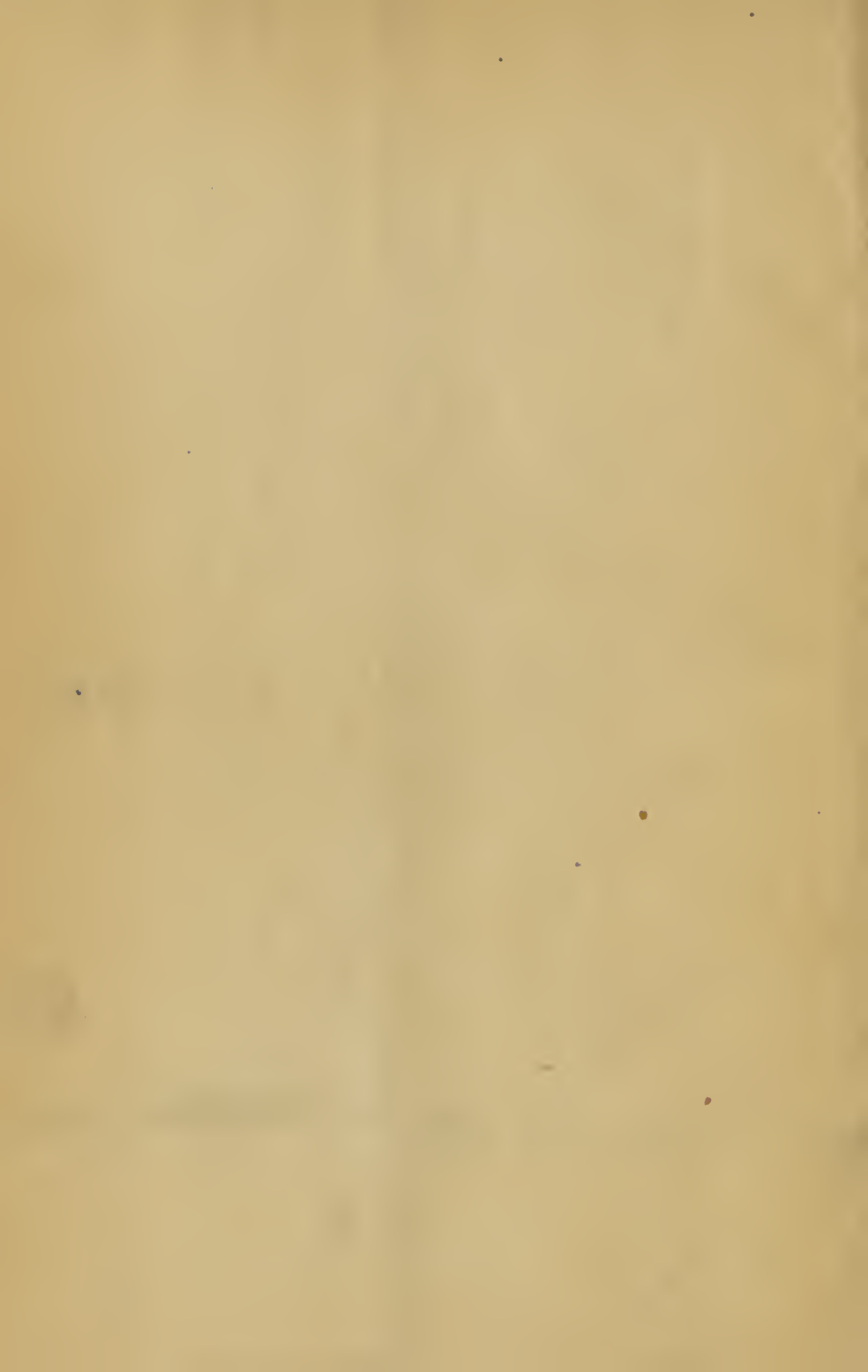
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(End of Article No. 1 on the Vital Statistics of New Orleans.)





LIFE AND DEATH

IN

NEW ORLEANS

From 1787 to 1869,

AND MORE ESPECIALLY DURING THE FIVE YEARS,

1856 to 1860,

BY

STANFORD E. CHAILLÉ, A. M., M. D.,

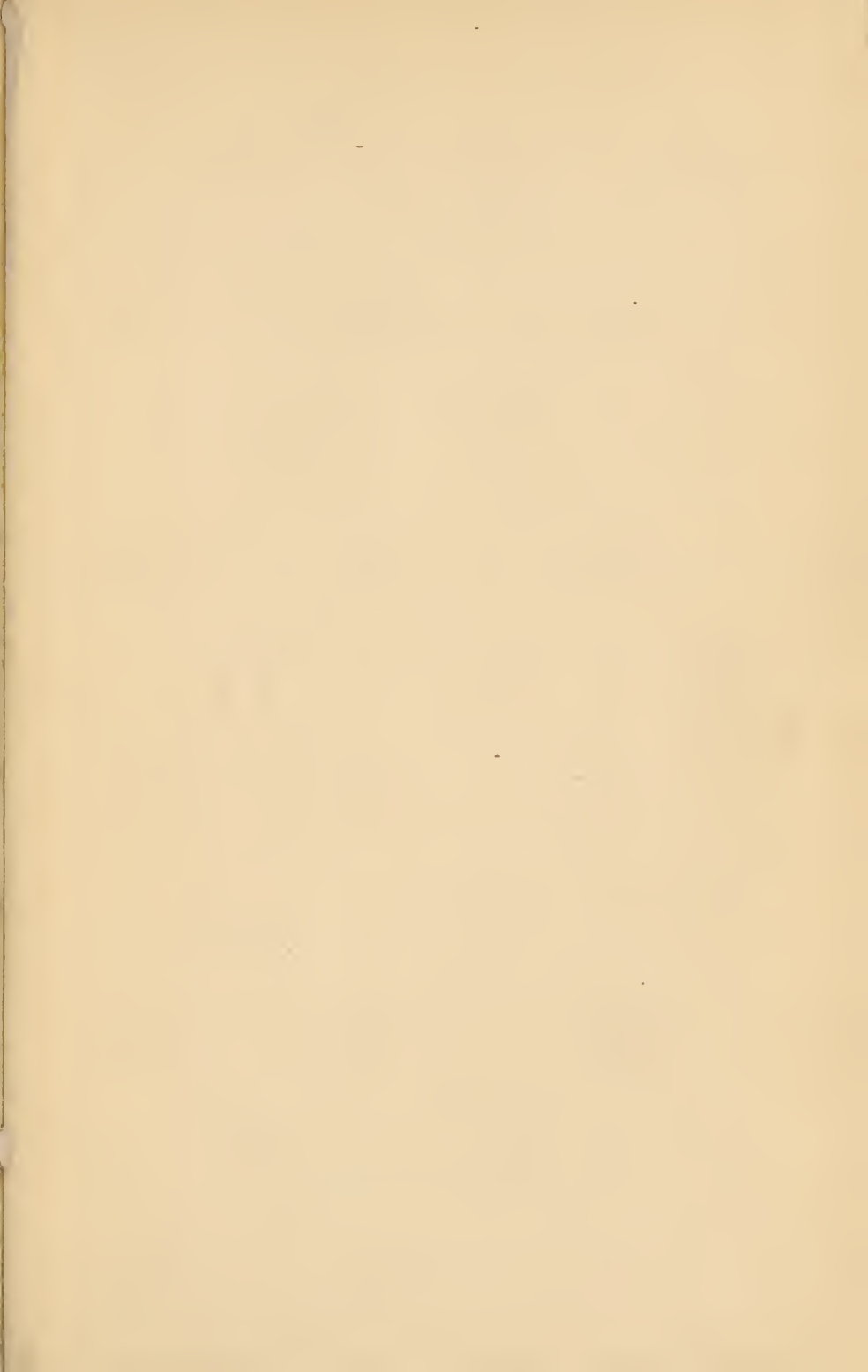
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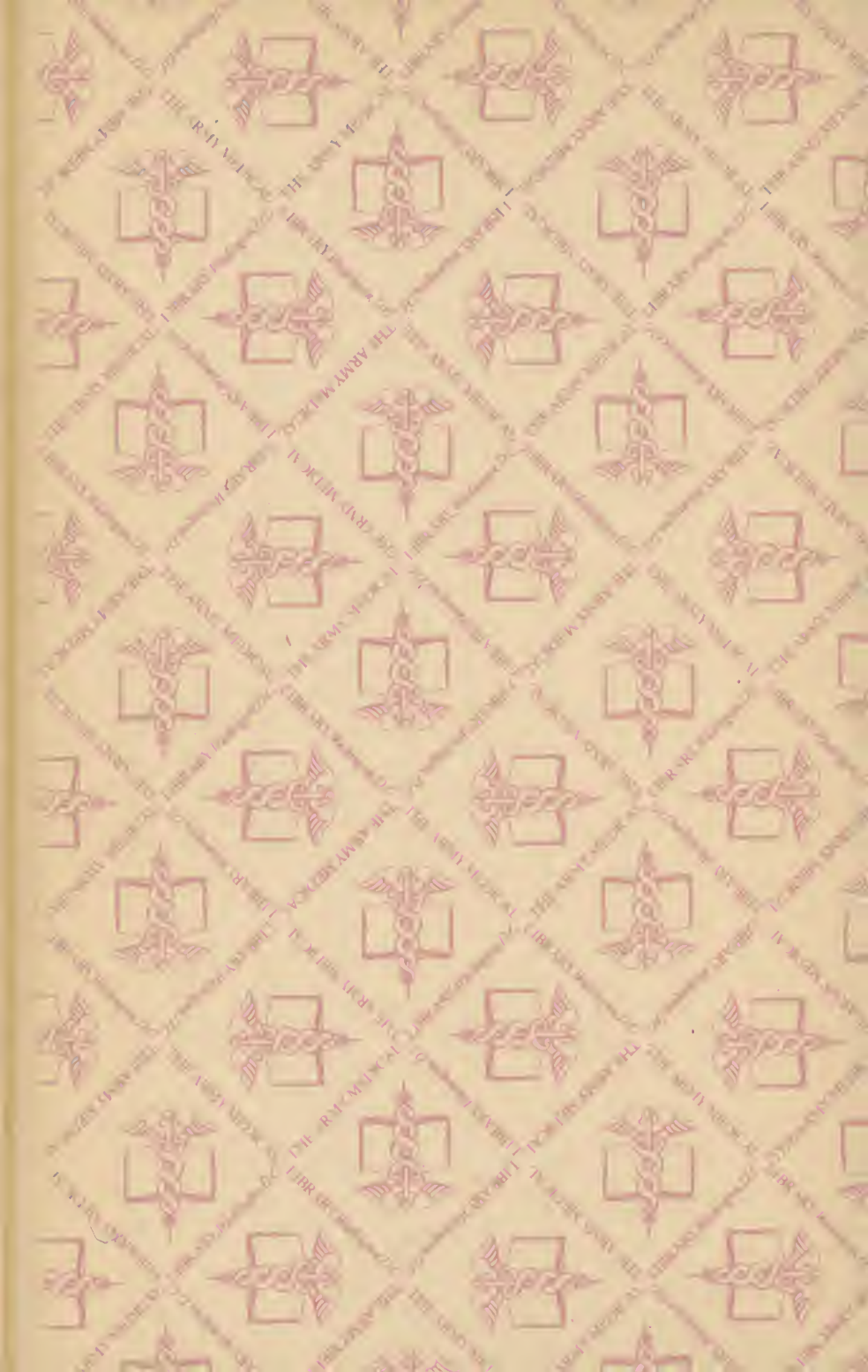
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